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COMMITTEE MEMORANDUM

TO: Mayor Dan Gelber and Members of the City Commission

FROM: Rafael A. Paz, City Attorney

DATE: June 23, 2023

SUBJECT: **BUDGETING PROCESS FOR CITY ATTORNEY'S OFFICE**

This referral item, sponsored by Vice-Mayor Ricky Arriola, requests for the City Attorney's Office (CAO) to review its budgeting process, particularly as it relates to settlement projections and outside counsel.

1. The City Attorney's Office Budget

The departmental budget for the City Attorney's Office is set forth in the City's annual operating budget book, covering the salary expenses, overhead and office expenses for the 15 attorneys and 9 administrative assistants in the Office. The CAO's Work Plan and Organizational Chart are attached as **Exhibit 1.**

The City Attorney's Office is involved in nearly all matters involving the governance and operation of the City. All of our attorneys and staff contribute to the work of the City and the CAO's core function of providing legal advice to the Mayor and City Commission, City Manager, administrative departments, and numerous advisory boards and committees. The City Attorney's Office practice areas include the following:

- *Legislation and Land Use*: Attorneys in the office research, draft, or review for legal sufficiency all ordinances and resolutions presented to the City Commission, including, without limitation, land use/zoning matters, ballot measures, quality of life legislation, tax matters, and hundreds of other matters involving City Commission policy directives.

- *Transactions*: Attorneys in the office draft, negotiate or review all contracts involving the operation and business affairs of the City, including leases or management agreements for City facilities, construction contracts, and complex development agreements and related documents for major public-private partnerships.

- *Regulatory/Commercial:* Attorneys in the office advise the City's Building, Fire, Planning and Public Works departments in the performance of their regulatory duties, as well as the Finance Department with regard to tax matters, collections and garnishments.

- *Litigation and Enforcement:* Attorneys in the office represent the City in all federal and state litigation to which the City is a party, as well as administrative proceedings and appeals, including complex land use board appeals.

- *Municipal Prosecutions/Police Legal Advisors:* Attorneys in the office prosecute all violations of City criminal ordinance offenses, handle civil forfeiture actions, administer the Justice Advocate Program for monitoring of certain cases prosecuted by the State

Attorney's Office involving offenders of special concern, and routinely advise the Police Department on legal issues in connection with pending investigations.

The CAO's budget is developed as part of the City's overall budget development process that commences in December/January and continues through the end of September when the final budgets are adopted by the City Commission. During this time, an in-depth review of each department's budgets is completed and several meetings are held to discuss each department's current operations and anticipated needs for the upcoming year, before the budgets are presented to the Finance and Economic Resiliency Committee (FERC) at the budget briefings in June and July, and thereafter the City Commission as part of the approval of the final budget. Additional details regarding the annual budget development process can be found in the City's annual operating budget book.

Recently, on May 25, 2023, in LTC No. 242-2023, *Fiscal Year Second Quarter Analysis*, the Administration advised that the City Attorney's Office is projected to be below its current amended budget by 5.9%, or $448,000.

2. The Risk Management Claims Fund

The operation of the City, including its police functions and other regulatory functions, exposes the City to a wide variety of civil claims. Since the 1980s, the City has self-insured for automobile liability, general liability, police professional liability, public official liability, and statutory workers' compensation benefits for injured employees (the majority of which are police/fire personnel).[1] The City does, however, carry excess workers' compensation for catastrophic on-the-job injuries as well as property, flood, and windstorm insurance to cover losses to City buildings.

The budget information relating to the City's claims liability expenses, including the settlement projections and outside legal counsel fees requested as part of this referral item, does not reside in the City Attorney's Office budget. Rather, those expenses reside with the Risk Management division of the Human Resources department and are administered as part of the Risk Management Claims Fund (the "Claims Fund").

The Claims Fund derives revenue from all City departments through an allocation formula, investment income earned on cash and investments within the Claims Fund, and insurance settlements or payouts received from time to time. In addition, the Claims Fund occasionally receives reimbursements for outside counsel expenses, when such expenses are covered under an indemnity or other contractual agreement. As required by the applicable financial report standards of Governmental Accounting and Standards Board (GSAB), the Claims Fund is budgeted an amount based on an annual actuarial computation provided by an independent third-party actuary of estimated claims losses and case reserves, including an estimate for known claims, claims incurred but not yet reported, and associated loss adjustment expenses, including outside counsel fees.

The budgets for the CAO and the City's Risk Management Claims Fund are attached as **Exhibit 2.** The Claims Fund, which is maintained separately from the General Fund Reserve and other

[1] With respect to state law negligence claims, the City enjoys sovereign immunity pursuant to §768.28, Fla. Stat., with recovery for all claimants generally capped at a maximum statutory limit of $300,000 per incident. The statutory cap for negligence claims may be exceeded with approval of the Florida Legislature via a "claims bill" process (a rare occurrence). Sovereign immunity is not available for claims asserting violations of federal law.

reserve funds of the City, had a balance of approximately **$39.4 million** as of September 30, 2022. Of this amount, approximately **$16 million** is currently encumbered for known claims liability in accordance with Governmental Accounting and Standards Board – *Accounting and Financial Reporting for Risk Financing and Related Insurance Issues* (GASB No 10), as required by the actuarial reports.

The most recent Actuarial Study, dated September 30, 2022, is attached as **Exhibit 3**. Among other factors, the Actuarial Study takes into account the City Attorney's annual audit disclosures, which are prepared in accordance with applicable GASB and professional standards. The City's audit letter dated September 30, 2022 is attached as **Exhibit 4.**

3. FY 2023 Second Quarter - Recent Adjustments to Claims Fund

In LTC No. 242-2023, *Fiscal Year Second Quarter Analysis*, the Administration advised that the City's actuary has projected the Claims Fund to be 10.6%, or $2.6 million, above the current amended budget, primarily due to unforeseen increases in tort claims incurred but not reported (IBNR). This material change in the City's tort liability exposure in the 2nd quarter of FY 2023 is largely due to the impacts of HB 837, the comprehensive Tort Reform bill that Governor DeSantis signed into law and which took effect on March 24, 2023. The Tort Reform bill reduced the statute of limitations for many claimants to assert a negligence claims from four (4) years to two (2) years, among other new limitations. As a result, many negligence claimants with claims aged between 2-4 years rushed to the courthouse to file their lawsuits before the new limitations period took effect.

Specifically, just before the law went into effect, the City experienced a wave of approximately 25 new tort cases filed against the City in a three-day period (March 21, 2023, March 22, 2023 and March 23, 2023), including, without limitation, a wrongful death action involving a drowning incident that occurred at the Scott Rakow Youth Center last year. This extraordinary, one-time surge in case filings was consistent with the statewide increase in tort case filings by plaintiffs seeking to avoid the application of the new law before it went into effect. To underscore the impact of the cases filed in the 3 days before the new law went into effect, the new case filings represent nearly a 100% increase in the CAO's pending cases – nearly doubling the City's entire tort litigation caseload in one fell swoop. In the long-term, the City anticipates that it will benefit from the prospective limitations set forth in the new Tort Reform bill, particularly the new rules on comparative negligence, which will now bar a plaintiff's recovery of damages if a plaintiff is determined to bear 51% or more in responsibility for an incident. Accordingly, the new law will significantly reduce the City's tort liability exposure over time.

In addition, the City is monitoring other legislative changes which may significantly alter its claims liability risk profile, such as SB 170, which creates a cause of action allowing for anyone to challenge any local ordinance by merely alleging that the ordinance is arbitrary or unreasonable, with the filing of the lawsuit automatically suspending the enforcement of the new ordinance and providing for damages and attorneys fee provisions. If SB 170 becomes law, we anticipate that the new law would create a cottage industry of lawsuits against municipalities and would have a dramatic impact on the City's litigation budget and overall claims liability exposure for ordinances adopted by the City Commission.

As explained in LTC No. 242-2023, any overage realized at year-end in terms of claims liability with regard to any matter involving the Claims Fund will be addressed with the use of prior year fund balance noted in Section 2 above.

4. Update on FY 2023 Litigation Matters

The City's litigation caseload generally consists of police liability cases (false arrest cases, excessive force cases, and the like), negligence and premises liability cases, commercial cases (contract-related disputes, construction disputes, and land use-related litigation), foreclosure matters (revenue-generating matters involving the satisfaction of liens for unpaid taxes and/or fees), and matters challenging the validity of City Commission ordinances or the City Commission's procurement-related decisions.

The CAO currently has only 3 attorneys dedicated on a full-time basis to litigation matters, under the supervision of the Chief Deputy City Attorney, who also handles all employment and labor-related administrative matters, and certain legislative matters.

i. Police Liability Cases

With respect to police liability cases, the CAO aggressively litigates these matters to obtain dismissals or otherwise successfully resolve the matter, with an in-house CAO attorney representing the City in every case, and the law firm of Switkes & Zappala, a local law firm based in Miami Beach, representing individual police officers when the officers are sued in their individual capacities. These efforts include aggressive motion practice, written discovery, taking and defending multiple depositions, and trial (if not otherwise settled or dismissed). The following is a representative list of police liability cases that the CAO litigation team is currently litigating or has recently won or otherwise resolved through settlements favorable to the City:

	CASE NAME	CASE NUMBER	CASE TYPE	STATUS
1.	Alberonick Valsaint v. CMB et al.	21-24143-CIV-RNS (S.D. Fla.)	42 U.S.C. 1983False arrest, excessive force, etc.	City obtained successful dismissal by the court.
2.	Ari Teman v. CMB et al.	23-cv-21361-RNS (S.D. Fla)	Civil rights - pro se plaintiff	City obtained successful dismissal by the court.
3.	Brandon Pruitt v. CMB, et al.	23-cv-21217-AMC (S.D. Fla)	Pro se prisoner - false arrest	City obtained successful dismissal by the court.
4.	C.W. v. CMB et al.	2021-011445-CA-32 (11th Jud. Cir. Circuit Court)	False arrest, battery & malicious prosecution	In discovery phase
5.	Carmelo Callejas v. CMB et al.	21-23294-CIV-BB (S.D. Fla.)	42 U.S.C. 1983 excessive force, assault, battery, etc.	City obtained successful dismissal by the court.
6.	CMB v. D.F.	2022-016099-CA-01 (11th Jud. Cir. County Court)	Equitable relief - Citizens Bill of Rights; malicious prosecution against Rothstein	Case stayed pending resolution of federal case - court order 3/11/23
7.	Cody Wade v. CMB et al.	21-22619-CIV-RNS (S.D. Fla.) – 42 U.S.C. 1983	Excessive force, etc.	City obtained successful dismissal by the court. Case against officers favorably settled.
8.	Darius Stephens v. MBPD et al.	2022-23516-SP-05 (11th Jud. Cir. County Court)	Illegal search & seizure, false citation	City obtained successful dismissal by the court.
9.	David Wright v. CMB	22-23133-CIV-CMA (S.D. Fla.)	Pro se 42 U.S.C. 1983 excessive force, etc.	City obtained successful dismissal by the court.
10.	Eliakim Brown v. CMB et al.	21-25196-CIV-MGC (S.D. Fla.)	Pro se 42 U.S.C. 1983 false arrest, etc.	City obtained successful dismissal by the court.

	CASE NAME	CASE NUMBER	CASE TYPE	STATUS
11.	Ernesto Orsetti v. CMB et al.	2021-022375-CA-31 (11th Jud. Cir. Circuit Court)	Malicious prosecution & abuse of process	City obtained successful dismissal by the court.
12.	Isaac Edouard v. CMB	2020-018109-CA-01 (11th Jud. Cir. Circuit Court)	False arrest	In discovery phase
13.	Jamel Cobb v. Jossue Dominguez etc.	2020-003163-CA-01 (11th Jud Cir Circuit Civil)	False arrest, excessive force, assault & battery all in one count	In discovery phase
14.	Jamie Senko v. CMB et al.	20-61845-CIV-AHS (S.D. Fla.)	42 U.S.C. 1983 excessive force, false arrest, etc.	City obtained successful dismissal by the court.
15.	Khalid Vaughn & Sharif Cobb v. CMB et al.	22-21109-CIV-CMA (S.D. Fla.)	42 U.S.C. 1983, excessive force, etc.	City obtained favorable global settlement
16.	Lamont Collins v. CMB et al.	21-24489-CIV-KMW (S.D. Fla.)	Pro se 42 U.S.C. 1983 Excessive force, false arrest, etc.	Motions to dismiss pending
17.	Lowell Poitier v. CMB et al.	22-23896-CV-KMM (S.D. Fla.)	42 U.S.C. 1983 excessive force, false arrest, etc.	City obtained successful dismissal by the court.
18.	Mariyah Maple v. CMB et al.	21-23960-CIV-BB (S.D. Fla.)	Unconstitutionality of City Code 70-8, false arrest, excessive force, etc.	City obtained favorable global settlement
19.	Nathan Hackett v. Delgado et al.	22-cv-21515-DPG (S.D. Fla.)	1983 force	City obtained successful dismissal by the court.
20.	Nicholas Cunningham & Osiris Miami LLC v. MBPD and Carlos Velledares	2022-23195-SP-05 (11th Jud. Cir. County Court)	Police impounding cannabis products causing business to lose $2000 in sales	City obtained successful dismissal by the court.
21.	Nicholas Cunningham v. MBPD et al.	2022-009501-SP-05 (11th Jud. Cir. County Court)	Police seizure of marijuana/THC-containing products	City obtained successful dismissal by the court.
22.	Osiris Miami LLC v. MBPD	2022-023195-SP-05 (11th Jud. Cir. County Court)	Police seizure of marijuana/THC-containing products	City obtained successful dismissal by the court.
23.	Richard Johnson v. CMB et al.	18-23925-CIV-AHS (S.D. Fla.)	42 U.S.C. 1983 battery, false arrest, etc.	City obtained favorable global settlement
24.	Ronald Saint-Vil v. CMB et al.	22-11990-BB (S.D. Fla.)	Battery, negligent infliction of emotional distress, failure to train/supervise, etc.	City obtained successful dismissal by the court. Case against officers favorably settled.
25.	Senko, Jamie v. CMB	22-11990-CA-11 (U.S. Ct. of Appeals for the 11th Cir)	1983 excessive force	City obtained successful dismissal by the court.
26.	William Sarubbi v. CMB et al.	2022-023501-CA-24 (11th Jud. Cir. Circuit Court)	42 U.S.C. 1983 excessive force, false arrest, negligent retention, etc.	Motions to dismiss pending

ii. Tort and Commercial Litigation

The CAO's 3 civil litigators also handle the vast majority of tort (personal injury) and commercial litigation asserted against the City in-house. **The CAO has obtained dismissals and/or has successfully resolved approximately 20 personal injury cases this year, and is actively litigating approximately 50 other cases**, as well as advising Risk Management and preparing the City to defend or otherwise resolve at least 10 pre-suit matters.

The CAO handles a wide variety of commercial litigation matters, employment litigation, and appeals, with over **35** current pending matters in various stages of litigation, the vast majority of which is handled in-house.

Whenever possible, I have prioritized taking as many cases in-house to be handled internally by our skilled litigation team, including cases that would meet the criteria for use of outside counsel, as discussed more fully below in Section 5.

Recent examples this Fiscal Year where the CAO team has litigated lawsuits *in-house* include:

- *Spring Break 2023*: An emergency injunction matter challenging the City's limitation of hours for package liquor stores during Spring Break 2023;
- *West Avenue Project*: A multi-million-dollar construction litigation brought by a City contractor working on the West Avenue Neighborhood Improvement Project, which was successfully resolved by City Commission action in November 2022 and dismissed by February, 2023; and
- *The Penrod/"Nikki Beach" Lawsuit*: A recent on-going challenge by the Penrod Brothers, a City tenant and concessionaire, to the City Commission's procurement authority with regard to the future use of the property located at 1 Ocean Drive, after the expiration of the Penrods' agreements with the City.
- *Injunction Against Nuisance Property in North Beach*: A recent proactive nuisance lawsuit resulting in a consent injunction which orders a residential property owner, his tenant, and his listing agent to immediately halt nuisance parties and illegal short-term rentals at a residential property in North Beach, as well as payment to the City of approximately $390,000 in outstanding fines; and
- *Challenges to HPB Approvals of Major Development Projects:* In FY 2022 and FY 2023, the CAO has handled in-house the administrative appeals involving major re-development projects approved by the Historic Preservation Board, such as the redevelopment of the Delano Hotel, matters which require full legal briefing, based on an extensive record before the HPB. The CAO is currently handling an on-going appeal involving the HPB's approval of the Shore Club Hotel renovation project.

5. Use of Outside Counsel in Certain Matters Requiring Additional Litigation Resources

As the CAO only employs a litigation team of three (3) full-time civil litigators, the representation of the City's interests occasionally requires the CAO to use the services of outside counsel. With respect to civil litigation matters, the CAO typically engages outside counsel only in cases involving (1) voluminous discovery or resources which would significantly limit the CAO's ability to perform the other functions of the office if handled in-house; (2) expedited timeframes, as such cases will often also require significant resources for briefing and discovery, such as certain emergency injunction proceedings, and (3) cases involving specific expertise, such as construction litigation (which will also typically involve voluminous discovery or other resources).

In those infrequent matters where outside counsel is retained, the selection of counsel is the responsibility of the City Attorney, pursuant to Section 3.01(h) of the City Charter. As the selection of outside counsel is exempt from competitive bidding requirements under Florida law, the

engagement of counsel is made on a case-by-case basis, depending on the issues in the case, the experience of the lawyers before the judge presiding over the case, or efficiencies involved in using a firm that worked a prior similar case. In all cases, the CAO requests for counsel to provide a discount off their standard hourly rates.

In FY 2023, the major cases for which the CAO has required the assistance of outside counsel include:

1. *Amnesia (aka Story Nightclub) v. CMB*: This case involved the successful defense of the City in emergency injunction proceedings arising out of Story Nightclub's challenge to the 2:00 a.m. alcohol hours rollback in the South of Fifth neighborhood, which was adopted by the City Commission, following a 5/7^{ths} vote. To date, the City has expended approximately $250,000, including with respect to the underlying trial court evidentiary hearings and Story's appeal of the trial court's ruling in favor of the City, which has been fully briefed and is currently pending before the Third District Court of Appeal. Now that Story has ceased operations, the City Commission, if it so chooses, may entertain a proposal to consider entitlements for the development of a new project at the property. As part of any such potential future arrangement, there is an opportunity to negotiate a settlement of the pending appeal and potentially obtain reimbursement of the City's legal expenses.

2. *Congregation 3401 v. CMB, et al.*: These matters involve the federal and state lawsuits filed against the City by the owner of 3401 Prairie Avenue, a property with which the City has had on-going disputes and prior litigation for over 40 years, asserting claims against the City and several public officials alleging religious discrimination, including seeking the termination of City employees and the removal of the Mayor from office. As previously disclosed to the City Commission, the CAO anticipates litigation expenses to approximate $1.7 million to be paid by the City's Claims Fund. The proposed settlement, if approved by the City Commission at the June 28, 2023 City Commission meeting, would also be funded by the Claims Fund.

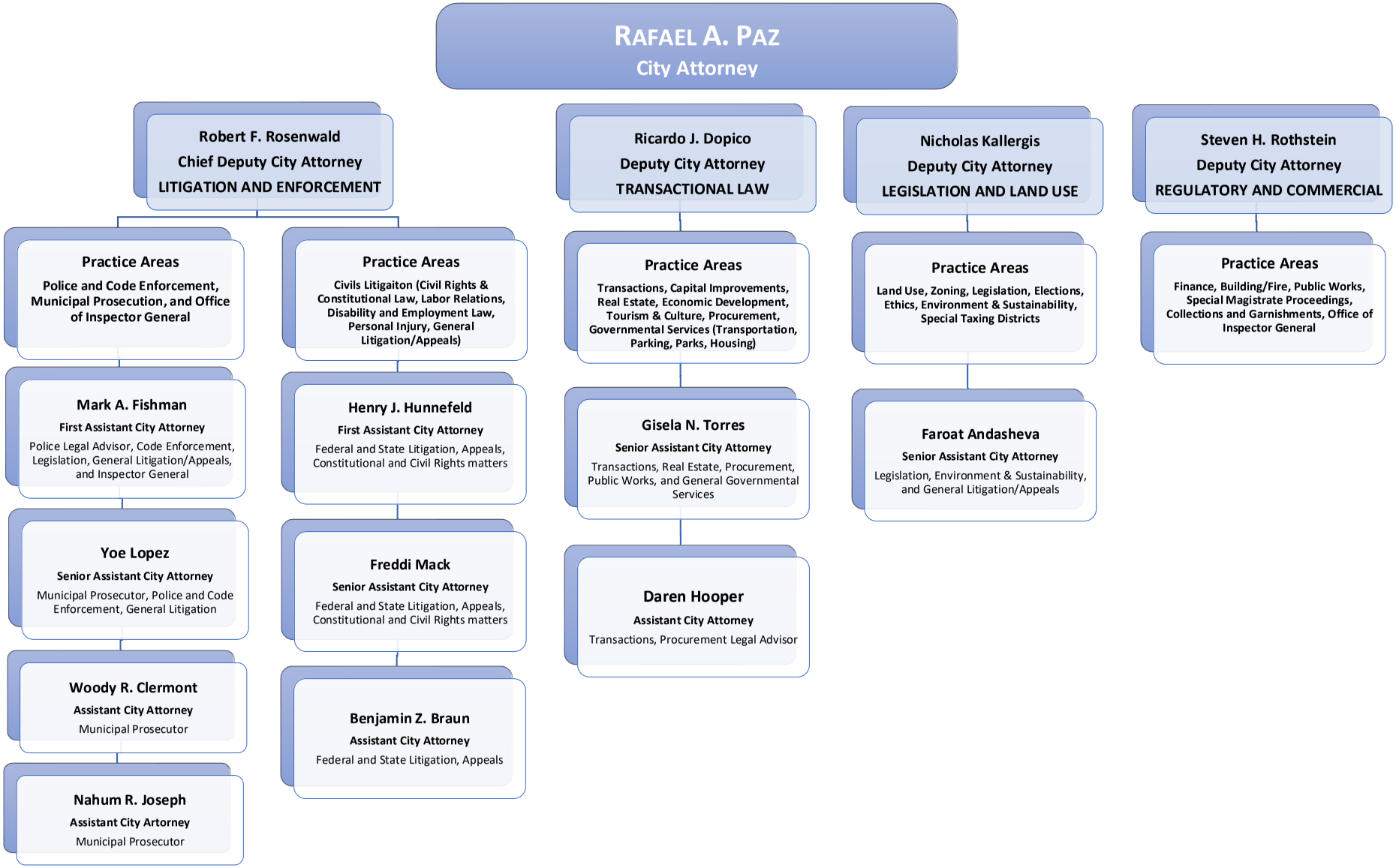
3. *Multiple Litigation Matters Re: Development of Seagull/Bulgari Hotel (with Reimbursement by Developer)*. These matters involve Setai's multiple ongoing challenges to the redevelopment of the adjacent Seagull Hotel into the first Bulgari Hotel property in the United States. The developer of the project has reimbursed the City for the bulk of its litigation costs, approximately $1.6 million, pursuant to the indemnity obligations in the Vacation Agreement and Reimbursement Agreement the CAO negotiated as part of the project approvals. The main case challenging the development of the project is fully briefed, and cross-motions for summary judgment remain pending. To date, the City and the developer have obtained favorable rulings on every substantive motion filed in the various cases.

4. *Various Police Cases for Sole Purpose of Representation of Individual Police Officers*: As explained above, in police cases, the in-house CAO attorney represents the City and the City utilizes outside counsel to represent the individual police officers, when claims are asserted against them in their individual capacities. This Fiscal Year, the City has expended approximately $576,000 in 21 cases asserting claims against officers in their individual capacity.

RAP/ag

Exhibit 1

OFFICE OF THE CITY ATTORNEY



OFFICE OF THE CITY ATTORNEY

FISCAL ENVIRONMENT

The Office of the City Attorney is supported by the General Fund. The General Fund charges an administrative fee to Enterprise Fund departments, the Redevelopment Agency (RDA), and the Resort Tax Fund to cover the cost of various administrative support functions provided by the General Fund.

Litigation expenses and litigation outside counsel fees, in those limited matters where outside counsel is required, are primarily paid through the Risk Management Fund. Other specialized matters requiring outside counsel from time to time, such as complex real estate/commercial transactions, elections matters, labor/collective bargaining, and bond counsel, and the like, are either taken into account as part of the City Attorney's annual budget review process, or are otherwise funded by the appropriate City department with responsibility for the matter.

In order to offset legal expenses, the City Attorney has initiated the following measures:

- Whenever possible, require developers and/or other parties proposing time-sensitive (and usually complex) real estate and/ or commercial transactions to the City, to reimburse the City's legal costs, up to an agreed amount
- Periodic review of cases being handled by outside counsel to determine what can be brought in-house

SIGNIFICANT ACCOMPLISHMENTS FY2022

- Favorable ruling from 11th Circuit Court of Appeals in Club Madonna case, upholding the constitutionality of the City's ordinance seeking to curb the exploitation of underage dancers in strip clubs
- Favorable ruling in state court emergency injunction proceeding challenging the City's March 23, 2022 State of Emergency declaration and weekend curfew for areas south of 23rd Street, following multiple shootings
- Summary Judgment in favor of the City in federal district court in a First Amendment case, McGriff v. CMB, regarding Memorial Day weekend programming
- Summary Judgment in favor of the City in federal district court in 2 police civil rights cases and dismissals of 7 employment discrimination cases
- Expanded the municipal prosecution program to prosecute certain misdemeanor offenses as municipal ordinance violations, and implemented the Justice Advocate Program for monitoring cases involving offenders of special concern
- Successfully negotiated and finalized over 500 contracts, including major projects subject to voter approval, such as the development agreements and ground leases for two Lincoln Lane Class A office projects
- Finalized closing for conveyance of 3.0 acre "Canopy Park" to the City, as well as the the Closing of the right-of- way conveyance approved for the redevelopment of the Seagull hotel property, resulting in City receiving first 2 installment payments of $5 million
- Finalized lease and lease amendments for the Collins Park Workforce Housing Project, the first public-private partnership for workforce housing in the City of Miami Beach
- Researched and drafted Ordinance to provide tenants with 60 days' notice of rent increases, legislation which was subsequently adopted by Miami-Dade County, Orange County, Palm Beach County, and other local governments
- Restructured Sidewalk Café Program from a regulatory permit-based framework to a contract concession framework, and obtained favorable state court ruling affirming validity of the contract-based model that provides City with greater control over it's right of way areas
- Researched and drafted ordinance reforming the automatic stay procedures for land use appeals, to discourage abusive litigation while safeguarding due process

FUTURE OUTLOOK

The City Attorney's Office looks forward to continuing to fully support and defend the City's numerous priorities and initiatives.

Exhibit 2

Exhibit 2

City Attorney's Office (CAO) Budget*

Expenditure Category	FY 2020			FY 2021			FY 2022			FY 2023			FY 2024
	Adopted	Revised	Actuals	Adopted	Revised	Actuals	Adopted	Revised	Actuals	Adopted	Revised	Actuals YTD	Preliminary
Salaries and Benefits	$4,734,000	$4,733,000	$4,129,351	$4,391,500	$4,291,500	$4,206,862	$4,870,000	$4,979,500	$4,861,627	$5,175,000	$5,175,000	$3,136,067	$5,215,000
Outside Legal Fees:													
Litigation and Appeals	400,000	670,000	529,488	405,000	979,500	929,447	405,000	519,400	255,184	405,000	661,000	200,348	405,000
Labor and Union Negotiations	300,000	271,000	84,815	250,000	225,000	64,675	250,000	275,000	58,023	225,000	441,000	170,253	200,000
Other Operating Expenditures	163,000	172,930	146,155	178,500	136,000	122,506	177,000	163,142	128,430	160,000	237,200	66,486	156,000
Internal Services Expenditures	481,000	486,070	485,066	518,000	518,000	517,000	458,000	458,000	458,000	555,000	555,000	370,000	555,000
Capital Expenditures	0	0	0	0	0	0	0	0	0	0	0	0	0
Total CAO Budget	**$6,078,000**	**$6,333,000**	**$5,374,875**	**$5,743,000**	**$6,150,000**	**$5,840,490**	**$6,160,000**	**$6,395,042**	**$5,761,265**	**$6,520,000**	**$7,069,200**	**$3,943,154**	**$6,531,000**
			$ Variance (Year-over-Year)	(335,000)			417,000			360,000			11,000
			% Variance (Year-over-Year)	-5.5%			7.3%			5.8%			0.2%

** Does not include the Municipal Prosecution program*

Average Annual $ Change Since FY 2020 113,250

Average Annual % Change Since FY 2020 1.9%

Risk Management Claims Fund

Expenditure Category	FY 2020			FY 2021			FY 2022			FY 2023			FY 2024
	Adopted	Revised	Actuals	Adopted	Revised	Actuals	Adopted	Revised	Actuals	Adopted	Revised	Actuals YTD	Preliminary
Salaries and Benefits	$1,110,500	$1,110,500	$1,029,298	$1,010,000	$998,000	$999,766	$950,000	$950,000	$690,364	$1,111,000	$1,111,000	$786,538	$1,192,000
Legal Settlements:													
General Liability Claims	2,280,000	1,370,000	1,139,818	3,156,000	1,661,000	857,911	2,268,000	1,548,000	524,935	2,677,000	2,177,000	840,836	2,690,000
Workers Comp Claims	4,884,000	5,219,000	5,157,745	4,971,000	7,591,000	7,530,819	5,222,000	5,222,000	4,773,969	5,056,000	5,056,000	3,338,850	5,641,000
Public Official Claims	111,000	286,000	236,674	87,000	137,000	96,000	222,000	222,000	53,244	92,000	92,000	9,500	112,000
Police Claims	522,000	447,000	468,800	501,000	101,000	13,500	719,000	719,000	75,000	664,000	664,000	719,000	1,657,000
Outside Legal Fees:													
General Liability	1,500,000	2,350,000	2,254,368	1,750,000	1,975,000	1,741,068	2,255,000	3,315,000	3,327,329	2,268,000	3,708,000	2,727,002	2,381,000
Workers Comp	600,000	355,000	353,874	500,000	500,000	377,634	500,000	500,000	421,839	377,000	377,000	288,469	400,000
Property, Liability Insurance, etc.	5,624,000	5,258,000	4,735,181	7,123,000	6,123,000	6,054,527	6,905,000	7,018,236	6,112,205	8,599,000	8,599,000	6,656,639	8,630,000
Other Operating Expenditures	2,916,500	3,184,500	5,707,788	3,221,000	3,313,000	(2,612,460)	4,049,000	4,089,400	1,861,579	2,747,000	2,823,000	1,123,536	3,121,000
Internal Services Expenditures	107,000	197,000	107,000	136,000	136,000	130,000	235,000	236,364	236,364	255,000	255,000	170,000	255,000
Capital Expenditures	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Risk Management Fund Budget	**$19,655,000**	**$19,777,000**	**$21,190,545**	**$22,455,000**	**$22,535,000**	**$15,188,763**	**$23,325,000**	**$23,820,000**	**$18,076,828**	**$23,846,000**	**$24,862,000**	**$16,660,370**	**$26,079,000**
			$ Variance (Year-over-Year)	2,800,000			870,000			521,000			2,233,000
			% Variance (Year-over-Year)	14.2%			3.9%			2.2%			9.4%

Average Annual $ Change Since FY 2020 1,606,000

Average Annual % Change Since FY 2020 8.2%

Exhibit 3

Mr. Steven Glicksman, FCAS, MAAA
Glicksman Consulting, LLC
599 West Royal Palm Road, Suite A
Boca Raton, Florida 33486
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http://www.glicksmanconsulting.com/
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December 21, 2022

City of Miami Beach
1700 Convention Center Drive
Miami Beach, Florida 33139

Actuarial Study
September 30, 2022

Attn: Marc Chevalier II
Division Director Risk & Benefits

This actuarial study (Study) has been completed for the City of Miami Beach, Florida (the City) for the specific objectives listed. The intended usage is for the City in financial reporting as of September 30, 2022 and as a guideline for future funding in 2023/24.

It is divided into the following sections:

I. Summary of Conclusions
II. Background and Objectives
III. Methodology Notes
IV. Conditions/Limitations
V. Glossary

Each section follows.

I. SUMMARY OF CONCLUSIONS

The City has a self-insurance program for workers' compensation, law enforcement liability, general liability, automobile liability and public officials' liability

- Exhibit SUM-1 is a five-year summary of estimated outstanding losses, present value of estimated outstanding losses projected ultimate limited losses and projected losses paid

- Exhibit SUM-2 is a summary of change in estimated outstanding losses from September 30, 2021 to September 30, 2022.

- Exhibit SUM-3 is a summary of estimated outstanding losses and projected ultimate limited losses by confidence level.

- Exhibit SUM-4 is a summary of estimated outstanding losses by case reserves and IBNR as of September 30, 2022.

- Exhibit SUM-5 is a summary estimated outstanding losses by current and long-term as of September 30, 2022

1. Estimated Outstanding Losses as of September 30, 2022

The estimated outstanding losses (including allocated loss adjustment expenses [ALAE]) are the cost of unpaid claims. The estimated outstanding losses include case reserves, the development of known claims and incurred but not reported (IBNR) claims. ALAE are the direct expenses for specific claims.

- The estimated outstanding losses are $51,041,411 as of September 30, 2022.
- The present value of the estimated outstanding losses is $$39,432,281 as of September 30, 2022.

Amounts are from Exhibit SUM-1.

Notes

The present value of the estimated outstanding losses is based on an assumed 4.0% interest rate.

The estimated outstanding losses do not include unallocated loss adjustment expenses (ULAE). ULAE are primarily the costs of future claims administration for open claims.

Comparison to Previous Studies

The estimated outstanding losses of $50,972,601 as of September 30, 2022 compared to $47,844,039 as of September 30, 2021 (dated March 10, 2022).

This is a 6.5% change. Details by coverage are in Exhibit SUM-2.

Potential for Material Adverse Deviation

The estimated outstanding losses are the actuarial central estimate. It is based on the probable outcomes, but not all possible outcomes. The risk of material adverse deviation is a judgment as to actual losses materially exceeding the actuarial central estimate.

The Actuarial Standard of Practice (ASOP 36) requires commentary when the actuary "reasonably believes that there are significant risks and uncertainties that could result in material adverse deviation." ASOP 36 does not specify a materiality standard.

- Loss development has historically been variable.
- The adequacy of case reserves for workers' compensation has varied.
- There has been a change in the data provided for liability coverages resulting in a change in loss development facts.
- The City represented that it recently increased case reserves significantly for general liability and law enforcement liability based on internal reviews. We adjusted the analysis to assume that claims have case reserves that are 80.0% adequate for case reserves that include ALAE and 50.0% adequate for case reserves for indemnity only and denoted this as the assumed maximum.
- The City has identified claims in the liability data as non-insurance. On occasion, they are revised.
- For many years, the City was totally responsible for workers' compensation and liability not covered by tort limits.
- The City has experienced occasional large claims.
- The City has safety employees with an exposure to presumptive illness claims for workers' compensation.
- In addition to the data provided by the City, we supplemented our analysis with data from previous studies, similar organizations and insurance industry statistics.

We have not set a materiality standard. However, based on the above factors, we believe that the estimated outstanding loss amount is subject to a significant level of risk of adverse deviation as of September 30, 2022.

This disclosure is based on ASOP 36 and is not intended to be exclusive to this situation. Differences in the disclosure from previous studies are not intended to be a material change in our opinion, unless specifically stated otherwise. It is not a qualification of the Study.

Other Disclosures

- We have reviewed the exposure to asbestos and environmental claims. In our opinion, the chance of material liability related to asbestos and environmental claims is remote (other than the previously mentioned claims); since there have been no reported claims, and the staff believes the exposure to such claims is remote.
- We understand that there is no participation in any pools or associations that would impact the self-insurance program.
- No explicit reduction was made to allow for salvage and subrogation recoverable. However, the loss data used was net of salvage and subrogation recovered. Therefore, there is an implicit allowance for salvage and subrogation recoverable included in the amounts.
- Based solely on discussions with staff and their description of the ceded reinsurance, we are not aware of any excess insurance transaction that either has been or should have been accounted as retroactive reinsurance or as financial reinsurance (defined as contractual arrangements that do not include a transfer of both timing and underwriting risk).
- National Association Insurance Commissioners Insurance Regulatory Information System (IRIS) ratios were not calculated. They are irrelevant to the City.
- We have not reconciled the loss experience provided with financial statements.

2. <u>Projected Ultimate Limited Losses for 2023/24</u>

The projected ultimate limited losses (including allocated loss adjustment expenses [ALAE]) are the accrual value of losses with accident dates in 2023/24. ALAE are the direct settlement expenses for specific claims, primarily legal expenses.

- The projected ultimate limited losses are $9,250,043 for 2023/24.
- The present value of the projected ultimate limited losses is $7,526,059 for 2023/24.

Amounts are from Exhibit SUM-3.

Notes

Workers' compensation is at the retention of $1,500,000 for police and fire, and $1,000,000 for all other employees.

The present value of the projected ultimate limited losses is based on an assumed 4.0% interest rate.

The projected ultimate limited losses do not include unallocated loss adjustment expenses (ULAE). ULAE are primarily the costs of future claims administration for open claims.

Comparison to Previous Study

The projected ultimate limited losses of $9,250,043 for 2023/24 compared to $8,262,074 for 2022/23 in the previous study (April 12, 2022).

This is an 12.0% change.

II. BACKGROUND AND OBJECTIVES

A. BACKGROUND

The City has a self-insurance program for workers' compensation and liability (including law enforcement liability, general liability, automobile liability and public officials' liability). The City maintains financial reporting in accordance with GASB Statement No. 10 definitions.

The City purchased excess insurance for workers' compensation through 1996/97 as noted in Exhibit WC-1. There is no excess insurance from 1997/98 to December 20, 2017. The excess insurance is $1,000,000 and $1,500,000 (safety personnel) from December 21, 2017 to present.

For liability coverages, there has never been excess insurance. The amounts are capped to the Florida tort immunity limits. Claims filed in federal court (as is often the situation for police liability and employment practices liability) are not within the limit.

Loss experience data was provided by the City.

B. OBJECTIVES

The specific objectives of this Study are:

1. Estimate Outstanding Losses. Estimate outstanding losses (including allocated loss adjustment expenses [ALAE]) as of September 30, 2022.

   The estimated outstanding losses are the cost of unpaid claims. The estimated outstanding losses include case reserves, the development of known claims and incurred but not reported (IBNR) claims.

ALAE are the direct expenses for specific claims, primarily legal expenses plus workers' compensation medical case management fees.

2. Project Ultimate Limited Losses. Project ultimate limited losses (including ALAE) for 2023/24.

   The projected ultimate limited losses are the accrual value of losses and ALAE with accident dates in 2023/24, regardless of report or payment date. The amount is limited to the self-insured retention, if applicable.

III. METHODOLOGY NOTES

Data

Workers' Compensation

Workers' compensation losses were provided by the City. The claims are administered by CorVel. The data for workers' compensation was in the form of an Excel file that listed each claim. Amounts for recoveries were in a separate column. We compiled the data by year of occurrence. The loss development factors are based on unlimited and gross data. For other exhibits, we subtracted recoveries and limited the amounts to the retention, as applicable.

Last year CorVel provided materially different case reserve data than in the past. We communicated the increases with the City and the Florida Claims Manager for CorVel. It appears that the reserving has normalized. We explicitly considered the changes in the analysis.

There is a workers' compensation death claim WC-22-0300095, dated 8/16/22 that has a companion claim filed as a general liability (wrongful death) claim, GL-BI20220001-0606. The City contends the claim is solely workers' compensation with an approximate cost of $386,000. For the purpose of this Study, we have assumed it is workers compensation (added $400,000 to 2021/22) and not accrued anything for general liability.

Liability Coverages

The data for liability coverages was revised. It is cumulative to date. In the past, it was revisions of previous data.

In the past, most legal services (ALAE) are procured and managed internally. These costs are paid by an annual inter-departmental allocation and were not included in the loss experience data historically provided by the City. We have assumed that for the four most recent claim periods, the loss data includes

ALAE. In some instance, when handled internally, the ALAE is reported when the claim is closed.

We understand that last year the financial auditors issued a finding for general liability and law enforcement liability coverages. In response the City established quarterly meetings to review and discuss open general liability and law enforcement liability claims as update reserves as needed regarding the materiality threshold for reporting claims. This resulted in a significant increase in case reserves.

We reviewed all open liability claims with case reserves of at least $50,000. The following adjustments were made:

- 17557-1 is a general liability claim dated 2/1/89. It was closed on 10/1/89 for $1,566,364. A case reserve of $97,597 was set to $0.
- FA2017009057-1 is a law enforcement liability claim dated 3/18/17. The statute has expired, and it was set to $0.
- FA2018009217-2 is an law enforcement liability claim dated 8/22/2018. The statute has expired, and it was set to $0.
- GCPB01002009008223-1 is a public officials' liability claim dated 4/1/09. The City believes not a tort, and it was set to $0.
- OTHER2017008820-1 is a general liability claim dated 10/6/2017. The City believes not a tort, and it was set to $0.

It is probable that adjustments are required for closed claims (example some may not be torts). We did not adjust closed claims as the work required by the City is impractical. We do not believe it will materially impact the work, if anything, it is likely to decrease the outstanding losses.

We compared the data to the previous study and found it mostly consistent (occasional inconsistencies, such as a decrease in paid losses for some claim periods) when the adjustments were considered. We believe the data is reasonable to perform this Study.

Narrative of Exhibits

We narrate the exhibits in general terms and highlight differences by coverage.

Exhibit 1 is a summary of the loss experience and exposure data as of September 30, 2022.

The loss development factors are selected in Exhibit 2. They are based on successive annual unlimited and gross of recoveries losses. We compared the City's loss development with previous actuarial selections.

- For workers' compensation, the factors are mostly based on the average of the last three years and previous. We kept the increased tail factor from last year.
- For liability coverages there have been changes in the data base and discontinuities in some development factors. We mostly kept the previous factors with some adjustments for more observable changes.

Exhibits 3 to 7 show our actuarial methodologies to project losses by claim period. We have weighted each methodology based on our judgment as to their appropriate predictive power.

We included minimum levels of IBNR in terms of costs per open claims and percentage of case reserves by coverage. This added a measure of conservatism that we believe is reason given the variance in the loss development. Note that the minimum IBNR for workers' compensation was lowered from previous studies based on the increases in case reserves. Based on the changes in case reserves, we tended to increase the weighting of the methods related to paid losses.

As discussed above the City had a significant increase in case reserves for general liability (69.6%) and law enforcement liability (464.9%). In Exhibit -13 by coverage we capped the amounts for some large claims based on discussions with the City on case reserve adequacy per below.

- Claims denoted with an 'A' are assumed adequately reserved for indemnity and ALAE and capped to a 20.0% increase.
- Claims denoted with an 'AI' are assumed adequately reserved for indemnity only (ALAE is handled internally and not reported until the claim is closed) and capped to a 50.0% increase.

Exhibit 8 is a loss rate analysis used to project losses in future periods. The projections are trended extrapolations of loss and exposure amounts. This is a long-range projection. It is suitable for pro-forma budgets only. We recommend regular actuarial studies as the amounts are subject to change.

Exhibits 9 and 10 show the estimated outstanding losses and the present value of the estimated outstanding losses.

Exhibit 11 (page 1 to 5) show projected losses paid and estimated outstanding losses in future years. These amounts (especially estimated outstanding losses) are not to be used in financial audits. Subsequent actuarial studies are needed for a proper estimate.

Trends are calculated in Exhibit 12.

Large claims and capped claims are in Exhibit 13.

IV. CONDITIONS/LIMITATIONS

This Study is subject to the conditions/limitations below. All recipients are deemed to accept them.

Actuarial Estimates. Actuarial estimates are subject to material uncertainty from many different sources, including (but not limited to) the random nature of claims, historical experience not being indicative of future experience, changes in development patterns, catastrophes, legal interpretations, legislation and operations.

Assumptions and Information. The assumptions and information underlying the calculations are based on our communications with representatives of the City. At several points in the Study, we requested clarification on the assumptions and information and were affirmed they were an accurate representation.

Capitalization. Capitalization is a buffer in the event loss experience emerges worse than expected. The amount varies by retention, size of program, risk and other factors. Some jurisdictions of domicile may require statutory minimums. the City must maintain prudent capitalization to make payments in the event of claims. As insurance is an inherently risky venture, individuals or entities contributing to the capitalization need to understand the possibility of loss of capital.

Changes in Operations and Business Environment. Based on our discussions we understand that there have been no changes in operations or the business environment (other than those identified in the text) that may materially impact the Study.

Climate Change. The amounts in this Study exclude claims as a result, in total or in part, from climate change. We have no opinion regarding the City's exposure to insurance loss due to climate change.

Confidence Levels. Confidence levels typically consider two types of risk. These are parametric risk (risk that statistical parameters are not certain) and process risk (risk that even if parameters are known there is still randomness in results). In addition, there is model risk (risk that the model used is not appropriate for the given situation).

Data. We relied upon the data provided by the City without verification or audit, other than checks for reasonableness. At several points in the Study, we

requested clarification and were affirmed the data was accurate. Unless otherwise stated, we assumed the data provided to be correct and complete, and comparable to the exposures being considered. If the underlying data is incorrect and/or incomplete, this Study will also be incorrect and/or incomplete. Even small differences can have a material impact.

Dividends. Nothing in this Study addresses dividends.

Due Diligence. This Study is not a substitute for the due diligence of users other than the City. Every other user of this Study should place no reliance on this Study that would create any additional duty or liability by Glicksman Consulting, LLC.

Economic Environment. Unless otherwise stated, we assumed the current economic conditions will continue in the foreseeable future. For example, we assumed inflation will remain moderate.

Effective Period. The amounts are for the accounting date September 30, 2022 and the data relied upon is as of September 30, 2022. We are unaware of any additional facts that would materially affect the conclusions of this Study. Insurance conditions are dynamic and change over time. Nothing in this Study addresses the likelihood or timing of revisions. We recommend periodic reviews (annually). We do not assume responsibility to inform of events that may warrant a revision.

Funding Adequacy. We have not reviewed available assets, or other balance sheet or income statement items regarding funding adequacy. We have not reviewed contributions, premiums, expenses, investment income or other budget items. We have no opinion regarding the ability of the City to pay past claims or future claims.

Independence. Glicksman Consulting, LLC is independent of the City. We are unaware of any factors that may impair our objectivity.

Insurance. Unless otherwise stated, we assumed no insurance coverage changes (including coverage provided by the City to others) subsequent to the date this Study was prepared. This includes coverage language, self-insured retention, limitations and similar issues.

Insurance and Reinsurance Solvency. Unless otherwise stated, we assumed all insurance and reinsurance (if any) that may be purchased is from solvent sources and payable in accordance with terms of the coverage document. We have not reviewed the collectability of potential insurance partners. We have no opinion regarding the collectability of insurance or reinsurance, if any.

Investment Income and Interest Rate. Investment income is a supplemental revenue source that varies by interest rate assumption and payout schedule.

The exhibits may specify the annual interest rate used. Unless otherwise noted, the interest rate used was specified by the City. It is based on a mix of conservative short, medium and long-term bond yields corresponding to the payout duration. We have no opinion regarding the underlying invested assets or the actual return on investments.

Limits in Our Knowledge. Our only expertise is actuarial services. We are not accredited and have not advised on matters of capitalization, legality, policy language, regulatory compliance, risk transfer and taxes. We understand that there have been independent experts engaged in each of these areas as believed required by the City.

Limitation on Damages. We shall not be liable for any claim or demand by any third party arising out of the services provided except where such claim or demand results from willful misconduct. In no event, under any theory of law, shall we be liable to anyone for any amounts representing lost profits, loss of business, or special, indirect, incidental, consequential or punitive damages.

Methodology. The projections in this Study reflect our judgments as to the best method or combination of methods that are most reliable and reflective of the exposure to loss. In some instances, the methods yield significantly disparate results. The estimates, projections and recommendations in this Study reflect our judgments as to the best method or combination of methods that are most reliable and reflective of the exposure to loss.

Minimum Knowledge. We have assumed the City is familiar with common insurance terms and have an appreciation for the significant financial risks involved in an insurance program.

Pandemics. The amounts in this Study exclude claims as a result, in total or in part, from pandemics. We have no opinion regarding the City's exposure to insurance loss due to pandemics.

Policy Documents and Language. We have not been provided and have not reviewed actual policy documents and language. The Study was based on typical policies, verbal communications and summarized narratives regarding the exposures and perils for which the insurance coverages are needed and intended to cover.

Range of Values. The conclusions of this Study are point estimates, projections and recommendations within a wide range of possible outcomes. Where the

conclusions are shown as a range of values, it is possible that actual results will fall outside the range, perhaps by a significant amount.

Reinsurance. Nothing in this Study addresses appropriate reinsurance. We have not recommended limits, coverage or pricing. We have not reviewed the solvency of potential insurers. This Study is not intended for the evaluation of reinsurance.

Reproduction and Distribution. This Study may only be reproduced in its entirety and distributed externally to the financial auditor and appropriate regulatory officials. Partial reproduction and any other distribution are unauthorized without our prior written consent. The approval is dependent on the sole discretion of Glicksman Consulting, LLC and the recipient agreeing to execute a release of liability document.

Risk. We cannot over emphasize that insurance is an inherently risky business. Losses can vary significantly from projections. They can emerge higher or lower. The amounts can be material. Nothing in this Study warrants the financial results. The projections are subject to variation. Infrequently, there can be years with multiple expensive claims. We cannot guarantee that premiums will be adequate to cover losses in any year or groups of years. the City will be responsible for all of its losses, including periods when actual losses exceed projections. The City should consider their ability and willingness to bear this risk among the factors to proceed/continue with this venture.

Risk Transfer. From an actuarial perspective, risk transfer is an evolving area. There are no generally accepted practices or standards at this time. We are not aware of a singular statistic or tool that defines insurance risk transfer requirements in all situations. We have no opinion on whether the City has insurance risk transfer.

Securities Regulatory Organizations. This Study is not intended and may not be disclosed or filed with the Securities Exchange Commission (SEC) or other securities regulatory organizations.

Statutory and Judicial Changes. Legislatures and judiciaries may change statutes that govern indemnification, immunities and limitations for liability, and other similar issues. Unless otherwise stated, we assumed no statutory changes subsequent to the date this Study was prepared.

Supplemental Data. In addition to the data provided by the City, we supplemented our analysis with data from previous studies, similar organizations and insurance industry statistics, as we deemed appropriate. The application of supplemental data may represent an additional source of risk in the analysis.

Usage. This Study has been prepared for the exclusive usage of the City for the specified objective(s). We have prepared this Study in conformity with its intended use by persons technically competent in the areas addressed and for the stated purposes only. Judgments as to the conclusions, indications, methods, and data contained in this Study should be made only after a review in its entirety. It is assumed that the user of this Study will seek explanation of any matter in question. In no event shall we be liable to anyone for any amounts representing lost profits, loss of business, or special, indirect, incidental, consequential or punitive damages. Recipients of this Study shall not use or reference Glicksman Consulting, LLC directly or indirectly in any third-party communication without the prior written consent of Glicksman Consulting, LLC. The written consent will be provided at the sole discretion of Glicksman Consulting, LLC.

V. GLOSSARY

Actuarial Methods (Common) The following actuarial methods are commonly used:

- Developed Paid Losses
- Developed Reported Incurred Losses
- Developed Case Reserves
- Frequency Times Severity Analysis
- Loss Rate Analysis

The following describes each method:

- Developed Paid Losses. Paid losses represent the amounts actually paid to claimants (less excess insurance recoveries). As time goes on, loss payments continue until all claims are closed and there are no remaining payments expected. At this time, the ultimate losses for the claim period are known. This common process is called “paid loss development.” Paid loss development is an extrapolation of actual dollars paid. It does not depend on case reserve estimates. A potential shortcoming of utilizing this method is that only a small fraction of total payments has been made for the most recent claim periods. Extrapolating ultimate losses based on small amounts of actual payments may be speculative. A second potential shortcoming is that payment patterns can change over time.
- Developed Reported Incurred Losses. Reported incurred losses are paid losses plus case reserves. In most programs, total reported incurred losses underestimate the ultimate losses. Over time, as more information about a body of claims becomes known, they are adjusted either up or down until they are closed. Though many individual claims settle for less than what was estimated, these decreases are generally more than offset

by increases in the cost of other claims for which new information has emerged. The net effect is that total estimated costs are often revised upward over time. This normal process is called “reported incurred loss development.” Actuaries typically review the development patterns of the recent past to make projections of the expected future loss development and, therefore, estimations of ultimate losses.

- Developed Case Reserves. The developed case reserves method is a hybrid of the paid loss development and reported incurred loss development methods. It relies on the historical adequacy of case reserves to predict ultimate losses.
- Frequency Times Severity Analysis. The frequency times severity analysis is an actuarial method that uses a preliminary projection of ultimate losses to project claims severity. The claims severity times the number of claims is a predictor of ultimate losses. The focus of the frequency times severity analysis is that ultimate losses each period are dependent on the number of claims.
- Loss Rate Analysis. The loss rate analysis is based on the historical loss rates per exposure unit (such as payroll, vehicles or property value). The loss rates (projected ultimate losses divided by exposure units) are trended to reflect the effect of claim cost inflation and retention changes. The trended loss rates represent the rates that one would see if all of the claims had been handled in the claim cost environment that will be present in the upcoming period. The trended loss rate times the projected exposure units are a predictor of losses.
- Bornhuetter-Ferguson Method (B-F). The B-F method is an actuarial method that weights a preliminary projection of ultimate losses with projections of ultimate losses determined by other actuarial methods (usually the developed paid losses and developed reported incurred losses methods). For less mature claim periods, the B-F method leans more heavily to the preliminary projection. It gradually converges to the projections of ultimate losses determined by the other actuarial methods as the claim periods mature.

Allocated Loss Adjustment Expenses Allocated loss adjustment expenses (ALAE) are the direct expenses to settle specific claims. These expenses are primarily legal expenses.

Claim. Demand by an individual or entity to recover for a loss.

Claims Made. A policy written on this basis covers only those claims that are made (reported) during the policy period. Coverage for prior acts is provided back to what is known as the retroactive date, which is the effective date of the original claims made policy with the same insurer.

Confidence Level. A confidence level is the statistical certainty that an actuary believes funding will be sufficient. For example, an 80% confidence level means that the actuary believes funding will be sufficient in eight years out of ten. Confidence levels are determined based on mathematical models. Coverages that are low frequency and high severity (such as excess liability) are subject to greater risk than coverages that are high frequency and low severity (such as automobile physical damage). Therefore, they need a greater margin to attain a given confidence level.

Credibility. Credibility is the belief that the sample data is an accurate reflection of the larger population. Credibility is highest when the sample data is large, and the standard deviation of the larger population is low.

Dates. There are at least three milestone dates in a claim. They are the date of injury or accident, the date of report and the date of closure.

Deductible The portion of an insured loss to be borne by the insured before it is entitled to recovery from the insurer. Deductibles may be expressed as a dollar amount, percentage or waiting period.

Estimated Outstanding Losses Estimated outstanding losses are the cost of claims that have occurred (or reported in a claim made policy) that have not yet been paid. Estimated outstanding losses are calculated as projected ultimate losses less paid losses. Alternatively, they are the sum of case reserves and incurred but not reported (IBNR) claims. Other common names for estimated outstanding losses are outstanding claims liabilities and unpaid claims.

Experience Rating. A method of adjusting the premium for a risk based on past loss experience for that risk compared to loss experience for an average risk.

Exposure Data. Exposure data refers to the activities of the organization. For example, payroll is the most common exposure measure for workers' compensation. Exposure data should ideally have the following characteristics:

- Readily Available. The exposure data should be easily obtained.
- Vary With Losses. The exposure data should correlate directly with losses.
- Difficult to Manipulate. The exposure date should be readily verifiable.

Incurred But Not Reported. IBNR is really comprised of two distinct items. These are the development of known case reserves (incurred but not enough reported [IBNER] and incurred but not yet reported [IBNYR]).

- IBNER are the actuary's estimate of the inadequacy of case reserves. Most claims settle at amounts close to what is set by the claims

administrator. Some claims close favorably, and some emerge as more expensive. On balance, case reserves tend to be too low (especially for recent years). IBNER is the actuary's estimate of the amount total case reserves will rise upon closure.

- IBNYR refers to those claims that have occurred but have not yet been reported. A classic example is medical malpractice claim reported several years after the medical procedure was performed.

Investment Income. The return received by entities from their investment portfolios, including interest, dividends and realized capital gains on stocks. Realized capital gains means the profit realized on assets that have actually been sold for more their purchase price.

Limited. Many insurance programs purchase excess insurance for catastrophic claims. For example, they may purchase coverage for claims above a $500,000 per occurrence self-insured retention. "Limited" refers to an estimate or projection being limited to the self-insured retention. In contrast, "unlimited" means a loss projection not limited to the self-insured retention. Other common names for limited are net of excess insurance or capped losses.

Loss Development. The difference between the amount of losses initially estimated by the insurer and the amount reported in an evaluation on a later date. Loss development is typically measured for paid losses, reported incurred losses, case reserves and claim counts.

Net. Net excludes amounts below deductibles paid directly by the insured.

Premium. The price of insurance protection for a specified risk for a specified period of time.

Present Value. The amount of money that future amounts receivable is currently worth. For example, a policy may provide for payments to be made annually for ten years. The present value of that money would be less than the total amount of the regular periodic payments for ten years because of the amount of interest that a present lump sum could earn during the term than the payments otherwise would have been made.

Projected Losses Paid. Projected losses paid are the projected claims disbursements in a period, regardless of when the claim occurred. They typically include indemnification and ALAE, but not unallocated loss adjustment expenses (ULAE). "Projected losses paid" is a cash-flow analysis.

Projected Ultimate Losses. Projected ultimate losses are the accrual value of claims. They are the total amount that is expected to be paid in a particular claim period after all claims are closed. Projected ultimate losses are the total loss

costs for a particular period. They typically include indemnification and ALAE, but not ULAE. Other common names for projected ultimate losses are selected and ultimate losses.

Rate. The cost of a given unit of insurance. For example, in property insurance, it is the rate per $1,000 of value to be insured. The premium is the rate multiplied by the number of units of insurance purchased.

Self-Insurance Retention (SIR). The portion of a risk or potential loss assumed by an insured. It is often in the form of a per occurrence deductible.

Unallocated Loss Adjustment Expenses. Unallocated loss adjustment expenses (ULAE) are the indirect expenses to settle claims. These expenses are primarily administration and claims handling expenses.

* * * * *

I, Steven Glicksman, am a member in good standing of the American Academy of Actuaries and meet its qualification standards to prepare this Study.

Respectfully submitted,

Steven Glicksman, FCAS, MAAA
Actuary
GLICKSMAN CONSULTING, LLC

City of Miami Beach, Florida
Summary

Exhibit SUM-1

Summary of Estimated Outstanding Losses, Projected Ultimate Limited Losses and Projected Losses Paid

Ia. Estimated Outstanding Losses

Coverage (1)	Estimated Outstanding Losses 9/30/22 (2)	Estimated Outstanding Losses 9/30/23 (3)	Estimated Outstanding Losses 9/30/24 (4)	Estimated Outstanding Losses 9/30/25 (5)	Estimated Outstanding Losses 9/30/26 (6)	Estimated Outstanding Losses 9/30/27 (7)
(A) Workers' compensation	$39,246,443	$39,522,348	$40,073,355	$40,725,426	$41,469,589	$42,332,121
(B) Law enforcement liability	4,883,766	4,784,769	4,862,682	5,019,143	5,238,483	5,500,604
(C) General liability	5,821,028	6,048,489	6,320,891	6,633,156	6,981,851	7,364,792
(D) Automobile liability	725,484	756,986	795,349	839,009	887,092	939,154
(E) Public officials' liability	295,880	326,170	353,103	377,434	399,765	420,585
(T) Total	$50,972,601	$51,438,762	$52,405,380	$53,594,168	$54,976,780	$56,557,256

Ib. Present Value of Estimated Outstanding Losses

Coverage (1)	Present Value of Estimated Outstanding Losses 9/30/22 (2)	Present Value of Estimated Outstanding Losses 9/30/23 (3)	Present Value of Estimated Outstanding Losses 9/30/24 (4)	Present Value of Estimated Outstanding Losses 9/30/25 (5)	Present Value of Estimated Outstanding Losses 9/30/26 (6)	Present Value of Estimated Outstanding Losses 9/30/27 (7)
(A) Workers' compensation	$28,577,638	$28,848,272	$29,336,988	$29,830,397	$30,349,264	$30,917,841
(B) Law enforcement liability	4,505,850	4,409,844	4,472,022	4,610,490	4,812,549	5,051,146
(C) General liability	5,373,869	5,589,540	5,851,491	6,148,475	6,478,407	6,839,022
(D) Automobile liability	694,015	724,955	762,530	804,638	850,824	900,740
(E) Public officials' liability	280,909	309,189	334,719	358,069	379,629	399,978
(T) Total	$39,432,281	$39,881,800	$40,757,750	$41,752,069	$42,870,673	$44,108,727

II. Projected Ultimate Limited Losses

Coverage (1)	Projected Ultimate Limited Losses 2022/23 (2)	Projected Ultimate Limited Losses 2023/24 (3)	Projected Ultimate Limited Losses 2024/25 (4)	Projected Ultimate Limited Losses 2025/26 (5)	Projected Ultimate Limited Losses 2026/27 (6)
(A) Workers' compensation	$5,068,053	$5,374,672	$5,699,839	$6,044,680	$6,410,383
(B) Law enforcement liability	1,167,108	1,237,718	1,312,599	1,392,012	1,476,228
(C) General liability	1,929,724	2,046,473	2,170,284	2,301,587	2,440,833
(D) Automobile liability	450,554	477,813	506,721	537,377	569,888
(E) Public officials' liability	110,044	113,367	116,791	120,318	123,952
(T) Total	$8,725,483	$9,250,043	$9,806,234	$10,395,974	$11,021,284

III. Projected Losses Paid

Coverage (1)	Projected Losses Paid 2022/23 (2)	Projected Losses Paid 2023/24 (3)	Projected Losses Paid 2024/25 (4)	Projected Losses Paid 2025/26 (5)	Projected Losses Paid 2026/27 (6)
(A) Workers' compensation	$4,792,148	$4,823,665	$5,047,768	$5,300,517	$5,547,851
(B) Law enforcement liability	1,266,105	1,159,805	1,156,138	1,172,672	1,214,107
(C) General liability	1,702,263	1,774,071	1,858,019	1,952,892	2,057,892
(D) Automobile liability	419,052	439,450	463,061	489,294	517,826
(E) Public officials' liability	79,754	86,434	92,460	97,987	103,132
(T) Total	$8,259,322	$8,283,425	$8,617,446	$9,013,362	$9,440,808

Sections Ia and Ib are from Exhibit -10 and Exhibit -11 (pages 1 to 5), by coverage.

Section II is from Exhibit -8, by coverage.

Section III is from Exhibit -11 (pages 1 to 5), by coverage.

Summary of Change in Estimated Outstanding Losses from September 30, 2021 to September 30, 2022

I. Case Reserves

Coverage (1)	Case Reserves 9/30/21 (2)	Case Reserves 9/30/22 (3)	Change (3)-(2) (4a)	Percent Change (4a)/(2) (4b)
(A) Workers' compensation	$16,660,938	$15,198,969	($1,461,969)	-8.8%
(B) Law enforcement liability	375,667	2,122,305	1,746,638	464.9%
(C) General liability	1,709,644	2,899,760	1,190,116	69.6%
(D) Automobile liability	248,927	338,425	89,498	36.0%
(E) Public officials' liability	472,504	32,286	(440,218)	-93.2%
(T) Total	$19,467,680	$20,591,745	$1,124,065	5.8%

II. IBNR

Coverage (1)	IBNR 9/30/21 (2)	IBNR 9/30/22 (3)	Change (3)-(2) (4a)	Percent Change (4a)/(2) (4b)
(A) Workers' compensation	$23,755,828	$24,047,474	$291,646	1.2%
(B) Law enforcement liability	1,014,515	2,761,461	1,746,946	172.2%
(C) General liability	3,133,466	2,921,268	(212,198)	-6.8%
(D) Automobile liability	256,218	387,059	130,841	51.1%
(E) Public officials' liability	216,332	263,594	47,262	21.8%
(T) Total	$28,376,359	$30,380,856	$2,004,497	7.1%

III. Estimated Outstanding Losses

Coverage (1)	Estimated Outstanding Losses 9/30/21 (2)	Estimated Outstanding Losses 9/30/22 (3)	Change (3)-(2) (4a)	Percent Change (4a)/(2) (4b)
(A) Workers' compensation	$40,416,766	$39,246,443	($1,170,323)	-2.9%
(B) Law enforcement liability	1,390,182	4,883,766	3,493,584	251.3%
(C) General liability	4,843,110	5,821,028	977,918	20.2%
(D) Automobile liability	505,145	725,484	220,339	43.6%
(E) Public officials' liability	688,836	295,880	(392,956)	-57.0%
(T) Total	$47,844,039	$50,972,601	$3,128,562	6.5%

Sections I, II and III, (2) are from the previous actuarial study, by coverage.

Sections I, II and III, (3) are from Exhibit 9, by coverage.

Sections I, II and III, (2c) is (2b) less (2a).

Summary of Estimated Outstanding Losses and Projected Ultimate Limited Losses by Confidence Level

I. Estimated Outstanding Losses 9/30/22

Coverage (1)	Assumed Coefficient of Variation (CV) (2)	Estimated Outstanding Losses 9/30/22 (3a)	75.0% Confidence Level (3b)	80.0% Confidence Level (3c)	85.0% Confidence Level (3d)	90.0% Confidence Level (3e)	Present Value of Estimated Outstanding Losses 9/30/22 (4a)	75.0% Confidence Level (4b)	80.0% Confidence Level (4c)	85.0% Confidence Level (4d)	90.0% Confidence Level (4e)
(A) Workers' compensation	0.25	$39,246,443	$44,950,281	$46,841,557	$49,140,427	$52,197,146	$28,577,638	$32,730,937	$34,108,086	$35,782,028	$38,007,805
(B) Law enforcement liability	0.40	4,883,766	5,879,816	6,270,341	6,759,667	7,428,736	4,505,850	5,424,823	5,785,129	6,236,590	6,853,885
(C) General liability	0.25	5,821,028	6,667,021	6,947,534	7,288,503	7,741,875	5,373,869	6,154,874	6,413,840	6,728,615	7,147,160
(D) Automobile liability	0.40	725,484	873,447	931,460	1,004,149	1,103,540	694,015	835,560	891,056	960,593	1,055,672
(E) Public officials' liability	0.40	295,880	356,225	379,885	409,530	450,065	280,909	338,201	360,663	388,809	427,293
(T) Total		$50,972,601	$58,726,789	$61,370,777	$64,602,276	$68,921,362	$39,432,281	$45,484,395	$47,558,774	$50,096,635	$53,491,815

II. Projected Ultimate Limited Losses 2022/23

Coverage (1)	Assumed Coefficient of Variation (CV) (2)	Projected Ultimate Limited Losses 2022/23 (3a)	75.0% Confidence Level (3b)	80.0% Confidence Level (3c)	85.0% Confidence Level (3d)	90.0% Confidence Level (3e)	Present Value of Projected Ultimate Limited Losses 2022/23 (4a)	75.0% Confidence Level (4b)	80.0% Confidence Level (4c)	85.0% Confidence Level (4d)	90.0% Confidence Level (4e)
(A) Workers' compensation	0.35	$5,068,053	$6,015,604	$6,367,382	$6,803,434	$7,394,581	$3,856,789	$4,577,875	$4,845,579	$5,177,414	$5,627,277
(B) Law enforcement liability	0.50	1,167,108	1,435,548	1,553,511	1,703,002	1,912,101	742,280	913,008	988,032	1,083,108	1,216,095
(C) General liability	0.35	1,929,724	2,290,516	2,424,460	2,590,492	2,815,578	1,298,222	1,540,944	1,631,055	1,742,753	1,894,180
(D) Automobile liability	0.50	450,554	554,184	599,722	657,432	738,153	315,275	387,790	419,656	460,038	516,523
(E) Public officials' liability	0.50	110,044	135,355	146,477	160,572	180,288	76,343	93,903	101,619	111,397	125,075
(T) Total		$8,725,483	$10,431,206	$11,091,552	$11,914,931	$13,040,701	$6,288,909	$7,513,520	$7,985,940	$8,574,711	$9,379,150

III. Projected Ultimate Limited Losses 2023/24

Coverage (1)	Assumed Coefficient of Variation (CV) (2)	Projected Ultimate Limited Losses 2023/24 (3a)	75.0% Confidence Level (3b)	80.0% Confidence Level (3c)	85.0% Confidence Level (3d)	90.0% Confidence Level (3e)	Present Value of Projected Ultimate Limited Losses 2023/24 (4a)	75.0% Confidence Level (4b)	80.0% Confidence Level (4c)	85.0% Confidence Level (4d)	90.0% Confidence Level (4e)
(A) Workers' compensation	0.35	$5,374,672	$6,379,550	$6,752,611	$7,215,044	$7,841,955	$4,090,125	$4,854,837	$5,138,736	$5,490,648	$5,967,728
(B) Law enforcement liability	0.50	1,237,718	1,522,399	1,647,498	1,806,033	2,027,783	1,049,584	1,290,993	1,397,078	1,531,515	1,719,559
(C) General liability	0.35	2,046,473	2,429,093	2,571,140	2,747,217	2,985,922	1,835,686	2,178,896	2,306,313	2,464,254	2,678,371
(D) Automobile liability	0.50	477,813	587,712	636,006	697,207	782,812	445,799	548,335	593,393	650,494	730,363
(E) Public officials' liability	0.50	113,367	139,442	150,900	165,421	185,732	104,865	128,984	139,583	153,015	171,803
(T) Total		$9,250,043	$11,058,196	$11,758,156	$12,630,923	$13,824,205	$7,526,059	$9,002,046	$9,575,103	$10,289,925	$11,267,823

(2) is based on observed data and actuarial judgment.

Section I, (3a) and (4a) are from Exhibit -10, by coverage.

Sections II and III, (3a) and (4a) are from Exhibit -8, by coverage.

Confidence levels are based on (2) and a lognormal distribution.

Summary of Estimated Outstanding Losses by Case Reserves and IBNR as of September 30, 2022

I. Estimated Outstanding Losses

Coverage (1)	Estimated Outstanding Losses 9/30/22 (2a)	Case Reserves 9/30/22 (2b)	IBNR 9/30/22 (2c)
(A) Workers' compensation	$39,246,443	$15,198,969	$24,047,474
(B) Law enforcement liability	4,883,766	2,122,305	2,761,461
(C) General liability	5,821,028	2,899,760	2,921,268
(D) Automobile liability	725,484	338,425	387,059
(E) Public officials' liability	295,880	32,286	263,594
(T) Total	$50,972,601	$20,591,745	$30,380,856

II. Present Value of Estimated Outstanding Losses

Coverage (1)	Present Value of Estimated Outstanding Losses 9/30/22 (2a)	Present Value of Case Reserves 9/30/22 (2b)	Present Value of IBNR 9/30/22 (2c)
(A) Workers' compensation	$28,577,638	$11,067,261	$17,510,377
(B) Law enforcement liability	4,505,850	1,958,077	2,547,773
(C) General liability	5,373,869	2,677,007	2,696,862
(D) Automobile liability	694,015	323,745	370,270
(E) Public officials' liability	280,909	30,652	250,257
(T) Total	$39,432,281	$16,056,742	$23,375,539

Sections I and II, (2a) are from Exhibit 10 by coverage.

Section I, (2b) and (2c) are from Exhibit 9 by coverage.

Section II, (2b) and (2c) are proportional.

Summary of Estimated Outstanding Losses by Current and Long-Term as of September 30, 2022

I. Estimated Outstanding Losses

Coverage (1)	Estimated Outstanding Losses 9/30/22 (2a)	Current Estimated Outstanding Losses 9/30/22 (2b)	Long-Term Estimated Outstanding Losses 9/30/22 (2c)
(A) Workers' compensation	$39,246,443	$3,525,135	$35,721,308
(B) Law enforcement liability	4,883,766	1,242,763	3,641,003
(C) General liability	5,821,028	1,455,258	4,365,770
(D) Automobile liability	725,484	290,194	435,290
(E) Public officials' liability	295,880	59,176	236,704
(T) Total	$50,972,601	$6,572,526	$44,400,075

II. Present Value of Estimated Outstanding Losses

Coverage (1)	Present Value of Estimated Outstanding Losses 9/30/22 (2a)	Current Present Value of Estimated Outstanding Losses 9/30/22 (2b)	Long-Term Present Value of Estimated Outstanding Losses 9/30/22 (2c)
(A) Workers' compensation	$28,577,638	$3,456,015	$25,121,623
(B) Law enforcement liability	4,505,850	1,218,395	3,287,455
(C) General liability	5,373,869	1,426,724	3,947,145
(D) Automobile liability	694,015	284,504	409,511
(E) Public officials' liability	280,909	58,016	222,893
(T) Total	$39,432,281	$6,443,653	$32,988,628

Sections I and II, (2a) are from Exhibit 10 by coverage.

Section I, (2b) is from Exhibit 11 (page 1) by coverage (excludes 2022/23).

Section I, (2c) is (2a) less (2b).

Section II, (2b) is based on Section I, (2b)/1.02.

Section II, (2c) is (2a) less (2b).

City of Miami Beach, Florida
Workers' Compensation

Exhibit WC-1

Data Summary as of September 30, 2022

Claim Period (1)	Specific Self-Insured Retention (2)	Aggregate Retention (3)	Months of Development 9/30/22 (4)	Payroll (000) (5)	Reported Claims 9/30/22 (6)	Reported Open Claims 9/30/22 (7)	Limited Paid Losses 9/30/22 (8)	Limited Case Reserves 9/30/22 (9)	Limited Reported Incurred Losses 9/30/22 (10)
to 1995/96	See text	None	324.0	Not Provided	5,744	35	$24,128,733	$537,626	$24,666,359
1996/97	500,000	None	312.0	57,231	628	8	3,696,975	244,791	3,941,766
1997/98	None	None	300.0	61,976	607	5	1,412,132	289,571	1,701,703
1998/99	None	None	288.0	68,497	465	6	2,034,034	516,792	2,550,826
1999/00	None	None	276.0	74,809	509	7	3,713,233	516,784	4,230,017
2000/01	None	None	264.0	73,865	425	9	3,759,405	966,060	4,725,465
2001/02	None	None	252.0	70,303	423	20	10,164,590	2,628,639	12,793,229
2002/03	None	None	240.0	76,473	391	13	4,253,103	708,638	4,961,741
2003/04	None	None	228.0	83,289	394	8	2,430,421	110,630	2,541,051
2004/05	None	None	216.0	84,786	428	16	4,390,910	617,711	5,008,621
2005/06	None	None	204.0	112,300	436	9	3,469,656	158,431	3,628,087
2006/07	None	None	192.0	122,895	410	5	2,894,438	84,651	2,979,089
2007/08	None	None	180.0	129,842	418	9	3,891,599	183,569	4,075,168
2008/09	None	None	168.0	135,954	384	9	3,520,304	607,598	4,127,902
2009/10	None	None	156.0	139,615	403	4	2,237,622	36,191	2,273,813
2010/11	None	None	144.0	140,288	377	10	5,815,868	2,905,514	8,721,382
2011/12	None	None	132.0	144,516	409	7	2,460,317	193,936	2,654,253
2012/13	None	None	120.0	135,454	345	9	2,470,371	171,275	2,641,646
2013/14	None	None	108.0	144,287	348	4	1,752,457	106,466	1,858,923
2014/15	None	None	96.0	141,271	313	8	2,060,140	788,843	2,848,983
2015/16	None	None	84.0	151,687	310	6	2,513,307	326,665	2,839,972
2016/17	None	None	72.0	166,079	286	11	2,473,714	750,446	3,224,160
2017/18	See text	None	60.0	164,071	297	2	1,501,340	177,881	1,679,221
2018/19	1,000,000	None	48.0	164,860	321	6	2,529,837	103,774	2,633,611
2019/20	1,000,000	None	36.0	166,025	297	7	2,073,195	154,995	2,228,190
2020/21	1,000,000	None	24.0	168,443	413	13	4,074,492	582,459	4,656,951
2021/22	1,000,000	None	12.0	173,411	322	64	726,591	729,033	1,455,624
Total					16,103	310	$106,448,784	$15,198,969	$121,647,753

Data was provided by the City.

City of Miami Beach, Florida
Workers' Compensation

Summary of Percent Losses Paid, Losses Reported and Claims Reported

Months of Development (1)	Percent Losses Paid (2)	Percent Losses Reported (3)	Percent Claims Reported (4)
360.0	100.0%	100.0%	100.0%
348.0	93.2%	96.4%	100.0%
336.0	92.4%	96.0%	100.0%
324.0	91.6%	95.5%	100.0%
312.0	90.7%	95.1%	100.0%
300.0	89.8%	94.5%	100.0%
288.0	88.7%	93.9%	100.0%
276.0	87.5%	93.3%	100.0%
264.0	86.2%	92.6%	100.0%
252.0	84.8%	91.8%	100.0%
240.0	83.3%	90.9%	100.0%
228.0	81.7%	90.0%	100.0%
216.0	79.3%	89.0%	100.0%
204.0	76.3%	85.7%	100.0%
192.0	73.7%	85.0%	100.0%
180.0	72.0%	83.4%	100.0%
168.0	70.9%	82.2%	100.0%
156.0	70.1%	82.9%	100.0%
144.0	68.9%	81.4%	100.0%
132.0	67.3%	80.8%	100.0%
120.0	65.6%	83.5%	100.0%
108.0	63.9%	73.9%	100.0%
96.0	62.2%	73.6%	100.0%
84.0	61.2%	71.4%	100.0%
72.0	59.7%	75.0%	100.0%
60.0	57.0%	67.1%	100.0%
48.0	54.2%	66.7%	100.0%
36.0	50.0%	57.8%	99.8%
24.0	44.6%	53.0%	99.2%
12.0	25.0%	41.8%	95.4%

(2) is from Exhibit WC-2 (page 2).

(3) is from Exhibit WC-2 (page 3).

(4) is from Exhibit WC-2 (page 4).

Historical Unlimited and Gross of Recoveries Paid Losses ($000) and Unlimited and Gross of Recoveries Paid Loss Development

I. Historical Unlimited and Gross of Recoveries Paid Losses ($000)

Claim Period	Months of Development: 12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
2002/03	$521	$1,007	$1,303	$1,452	$1,562	$1,683	$1,869	$2,011	$2,192	$2,350	$2,510	$2,810	$3,019	$3,202	$3,378	$3,538	$3,701	$3,893	$4,064	$4,261
2003/04	644	1,134	1,361	1,541	1,625	1,701	1,754	1,794	1,831	1,905	2,087	2,161	2,179	2,199	2,231	2,290	2,328	2,400	2,437	
2004/05	979	1,911	2,377	2,615	2,775	2,895	3,064	3,135	3,251	3,538	3,704	3,851	3,913	4,012	4,077	4,193	4,331	4,428		
2005/06	1,004	1,658	1,804	2,073	2,424	2,565	2,627	2,841	2,924	2,995	3,072	3,149	3,204	3,237	3,318	3,366	3,497			
2006/07	846	1,498	1,979	2,065	2,118	2,226	2,334	2,433	2,487	2,631	2,684	2,732	2,829	2,857	2,879	2,897				
2007/08	1,404	2,081	2,361	2,608	2,716	2,871	3,193	3,414	3,577	3,663	3,734	3,778	3,857	3,881	3,909					
2008/09	1,489	2,230	2,504	2,650	2,772	2,947	3,022	3,116	3,188	3,251	3,307	3,397	3,468	3,537						
2009/10	1,159	1,647	1,751	1,817	2,002	2,087	2,113	2,143	2,183	2,186	2,229	2,246	2,259							
2010/11	1,371	2,462	2,823	3,311	3,679	4,034	4,340	4,634	4,917	5,242	5,549	5,833								
2011/12	1,067	1,848	2,042	2,138	2,244	2,300	2,366	2,368	2,440	2,466	2,489									
2012/13	1,093	1,651	1,920	2,046	2,205	2,270	2,306	2,356	2,425	2,476										
2013/14	767	1,283	1,444	1,539	1,623	1,634	1,695	1,714	1,759											
2014/15	674	1,322	1,649	1,764	1,860	2,009	2,050	2,085												
2015/16	885	1,733	2,094	2,234	2,367	2,486	2,528													
2016/17	948	1,764	2,027	2,317	2,445	2,552														
2017/18	782	1,254	1,365	1,480	1,516															
2018/19	1,278	2,130	2,412	2,552																
2019/20	1,096	1,940	2,073																	
2020/21	1,960	4,090																		
2021/22	727																			

II. Unlimited and Gross of Recoveries Paid Loss Development

Claim Period	Months of Development: 12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
2002/03	1.931	1.294	1.114	1.076	1.078	1.111	1.076	1.090	1.072	1.068	1.119	1.074	1.061	1.055	1.047	1.046	1.052	1.044	1.048	
2003/04	1.760	1.201	1.132	1.054	1.047	1.032	1.022	1.021	1.040	1.096	1.036	1.008	1.009	1.015	1.026	1.016	1.031	1.015		
2004/05	1.951	1.244	1.100	1.061	1.043	1.058	1.023	1.037	1.088	1.047	1.040	1.016	1.025	1.016	1.028	1.033	1.022			
2005/06	1.652	1.088	1.150	1.169	1.058	1.024	1.081	1.029	1.024	1.026	1.025	1.017	1.010	1.025	1.014	1.039				
2006/07	1.770	1.321	1.044	1.026	1.051	1.048	1.043	1.022	1.058	1.020	1.018	1.035	1.010	1.008	1.006					
2007/08	1.482	1.134	1.105	1.041	1.057	1.112	1.069	1.048	1.024	1.019	1.012	1.021	1.006	1.007						
2008/09	1.497	1.123	1.058	1.046	1.063	1.025	1.031	1.023	1.020	1.017	1.027	1.021	1.020							
2009/10	1.422	1.063	1.038	1.102	1.042	1.012	1.014	1.019	1.001	1.020	1.008	1.006								
2010/11	1.796	1.146	1.173	1.111	1.096	1.076	1.068	1.061	1.066	1.059	1.051									
2011/12	1.733	1.105	1.047	1.050	1.025	1.029	1.001	1.031	1.011	1.009										
2012/13	1.510	1.163	1.066	1.078	1.030	1.016	1.022	1.029	1.021											
2013/14	1.673	1.125	1.066	1.054	1.007	1.037	1.011	1.026												
2014/15	1.961	1.247	1.070	1.054	1.081	1.020	1.017													
2015/16	1.958	1.209	1.067	1.060	1.050	1.017														
2016/17	1.861	1.149	1.143	1.055	1.044															
2017/18	1.603	1.089	1.085	1.024																
2018/19	1.667	1.133	1.058																	
2019/20	1.771	1.069																		
2020/21	2.086																			
2021/22																				
Average																				
All	1.741	1.161	1.089	1.066	1.051	1.044	1.037	1.036	1.039	1.038	1.037	1.025	1.020	1.021	1.025	1.034	1.035	1.030	1.048	
Wtd 3	1.883	1.099	1.094	1.049	1.056	1.024	1.017	1.029	1.041	1.038	1.035	1.017	1.012	1.013	1.018	1.031	1.035			
Last 3	1.841	1.097	1.095	1.046	1.058	1.025	1.016	1.029	1.033	1.029	1.029	1.016	1.012	1.013	1.016	1.029	1.035			
Last 5	1.766	1.123	1.074	1.055	1.041	1.022	1.016	1.029	1.017	1.019	1.019	1.020	1.013	1.013	1.023					
x-hi,low																				
Previous	1.734	1.145	1.074	1.055	1.037	1.027	1.014	1.030	1.020	1.021	1.018	1.020	1.009	1.018	1.031	1.041	1.044	1.030	1.020	1.200
Selected	1.788	1.121	1.085	1.051	1.048	1.026	1.015	1.029	1.026	1.025	1.023	1.018	1.011	1.016	1.024	1.035	1.040	1.030	1.020	1.200
Cumulative	4.008	2.242	2.000	1.844	1.755	1.675	1.633	1.609	1.564	1.524	1.486	1.452	1.426	1.411	1.389	1.357	1.311	1.261	1.224	1.200
Percent Losses Paid	25.0%	44.6%	50.0%	54.2%	57.0%	59.7%	61.2%	62.2%	63.9%	65.6%	67.3%	68.9%	70.1%	70.9%	72.0%	73.7%	76.3%	79.3%	81.7%	83.3%

Section I was provided by the City and previous actuarial studies.

City of Miami Beach, Florida
Workers' Compensation

Historical Unlimited and Gross of Recoveries Reported Incurred Losses ($000) and Unlimited and Gross of Recoveries Reported Incurred Loss Development

I. Historical Unlimited and Gross of Recoveries Reported Incurred Losses ($000)

Claim Period	Months of Development: 12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
2002/03	$868	$1,355	$1,594	$1,729	$2,277	$2,452	$2,609	$2,663	$2,840	$2,878	$3,075	$3,383	$3,967	$4,019	$4,771	$4,801	$4,926	$5,954	$4,964	$4,969
2003/04	1,047	1,569	1,821	2,016	2,003	1,998	2,011	2,070	2,070	2,266	2,500	2,452	2,461	2,501	2,539	2,594	2,639	2,523	2,548	
2004/05	1,626	2,626	3,187	3,250	3,266	3,237	3,502	3,520	3,704	4,188	4,238	4,550	4,617	4,638	4,632	5,059	4,942	5,046		
2005/06	1,451	2,137	2,225	2,655	3,094	3,075	3,049	3,305	3,362	3,239	3,402	3,623	3,595	3,593	3,779	3,617	3,655			
2006/07	2,085	2,423	2,513	2,445	2,413	2,490	2,522	2,826	2,915	2,972	3,001	3,009	3,091	3,158	2,992	2,982				
2007/08	3,382	2,985	3,095	3,135	3,180	3,428	3,784	3,914	3,985	4,162	4,161	4,172	4,581	4,104	4,092					
2008/09	3,127	3,050	3,331	3,199	3,222	3,333	3,288	3,477	3,472	4,195	4,162	4,270	4,090	4,145						
2009/10	2,256	2,199	2,139	2,124	2,230	2,247	2,500	2,492	2,516	2,471	2,357	2,311	2,296							
2010/11	3,052	3,674	3,589	4,355	4,345	4,955	5,017	6,125	6,283	10,031	8,758	8,739								
2011/12	2,312	2,413	2,463	2,546	2,701	3,135	2,722	2,843	2,890	2,685	2,683									
2012/13	2,056	2,307	2,319	2,393	2,447	2,473	2,479	2,716	2,591	2,647										
2013/14	1,681	1,697	1,828	1,940	1,921	1,927	1,919	1,830	1,865											
2014/15	1,592	1,772	2,794	2,791	2,837	3,621	2,883	2,873												
2015/16	1,737	2,028	2,262	2,331	2,545	2,845	2,855													
2016/17	1,773	1,949	2,297	3,737	3,139	3,303														
2017/18	1,187	1,346	1,512	1,615	1,694															
2018/19	1,931	2,513	2,550	2,656																
2019/20	1,798	2,205	2,228																	
2020/21	3,081	4,672																		
2021/22	1,456																			

II. Unlimited and Gross of Recoveries Reported Incurred Loss Development

Claim Period	Months of Development: 12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
2002/03	1.561	1.176	1.084	1.317	1.077	1.064	1.021	1.067	1.014	1.068	1.100	1.173	1.013	1.187	1.006	1.026	1.209	0.834	1.001	
2003/04	1.498	1.161	1.107	0.994	0.997	1.007	1.029	1.000	1.095	1.103	0.981	1.004	1.016	1.015	1.022	1.017	0.956	1.010		
2004/05	1.614	1.214	1.020	1.005	0.991	1.082	1.005	1.052	1.131	1.012	1.074	1.015	1.005	0.999	1.092	0.977	1.021			
2005/06	1.472	1.042	1.193	1.165	0.994	0.992	1.084	1.017	0.963	1.050	1.065	0.992	1.000	1.052	0.957	1.010				
2006/07	1.162	1.037	0.973	0.987	1.032	1.013	1.121	1.032	1.020	1.010	1.003	1.027	1.022	0.948	0.997					
2007/08	0.883	1.037	1.013	1.015	1.078	1.104	1.034	1.018	1.044	1.000	1.003	1.098	0.896	0.997						
2008/09	0.975	1.092	0.960	1.007	1.034	0.987	1.057	0.999	1.208	0.992	1.026	0.958	1.013							
2009/10	0.975	0.973	0.993	1.050	1.007	1.113	0.997	1.010	0.982	0.954	0.981	0.993								
2010/11	1.204	0.977	1.214	0.998	1.140	1.013	1.221	1.026	1.596	0.873	0.998									
2011/12	1.044	1.021	1.034	1.061	1.161	0.869	1.044	1.016	0.929	0.999										
2012/13	1.122	1.005	1.032	1.023	1.010	1.003	1.096	0.954	1.022											
2013/14	1.010	1.077	1.061	0.990	1.003	0.996	0.954	1.019												
2014/15	1.113	1.577	0.999	1.016	1.277	0.796	0.997													
2015/16	1.168	1.115	1.031	1.092	1.118	1.004														
2016/17	1.099	1.179	1.627	0.840	1.052															
2017/18	1.134	1.123	1.068	1.049																
2018/19	1.302	1.015	1.041																	
2019/20	1.226	1.010																		
2020/21	1.517																			
2021/22																				
Average																				
All	1.215	1.102	1.085	1.038	1.065	1.003	1.051	1.017	1.091	1.006	1.026	1.032	0.995	1.033	1.015	1.008	1.062	0.922	1.001	
Wtd 3	1.379	1.037	1.259	0.960	1.146	0.912	1.019	0.994	1.306	0.909	1.003	1.020	0.970	1.001	1.022	0.997	1.081			
Last 3	1.348	1.050	1.246	0.994	1.149	0.932	1.015	0.996	1.182	0.942	1.002	1.016	0.977	0.999	1.015	1.002	1.062			
Last 5	1.221	1.084	1.047	1.019	1.060	0.956	1.046	1.015	1.071	0.982	1.001	1.004	1.006	1.004	1.008					
x-hi,low																				
Previous	1.185	1.132	1.063	1.018	1.086	0.972	1.047	1.012	1.080	0.991	1.015	1.018	1.008	1.029	1.022	1.015	1.015	1.012	1.010	1.100
Selected	1.266	1.091	1.154	1.006	1.118	0.952	1.031	1.004	1.131	0.966	1.008	1.017	0.992	1.014	1.018	1.008	1.039	1.012	1.010	1.100
Cumulative	2.390	1.887	1.730	1.499	1.490	1.333	1.401	1.359	1.354	1.197	1.238	1.228	1.207	1.216	1.199	1.177	1.167	1.124	1.111	1.100
Percent Losses Paid	41.8%	53.0%	57.8%	66.7%	67.1%	75.0%	71.4%	73.6%	73.9%	83.5%	80.8%	81.4%	82.9%	82.2%	83.4%	85.0%	85.7%	89.0%	90.0%	90.9%

Section I was provided by the City and previous actuarial studies.

City of Miami Beach, Florida
Workers' Compensation

Historical Reported Claims and Reported Claim Development

I. Historical Reported Claims

Claim Period	Months of Development: 12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
2002/03	368	390	390	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391
2003/04	378	393	394	394	394	394	394	394	394	394	394	394	394	394	394	394	394	394	394	
2004/05	408	426	427	427	428	428	428	428	428	428	428	428	428	428	428	428	428	428		
2005/06	417	434	435	435	435	435	435	435	436	436	436	436	436	436	436	436	436			
2006/07	398	409	410	410	410	410	410	410	410	410	410	410	410	410	410	410				
2007/08	412	417	417	417	417	417	418	418	418	418	418	418	418	418	418					
2008/09	374	384	384	384	384	384	384	384	384	384	384	384	384	384						
2009/10	393	401	402	402	403	403	403	403	403	403	403	403	403							
2010/11	373	377	377	377	377	377	377	377	377	377	377	377								
2011/12	390	408	409	409	409	409	409	409	409	409	409									
2012/13	339	345	345	345	345	345	345	345	345	345										
2013/14	337	348	348	348	348	348	348	348	348											
2014/15	306	311	312	312	313	313	313	313												
2015/16	307	310	310	310	310	310	310													
2016/17	278	286	286	286	286	286														
2017/18	288	297	297	297	297															
2018/19	318	321	321	321																
2019/20	291	297	297																	
2020/21	409	413																		
2021/22	322																			

II. Reported Claim Development

Claim Period	Months of Development: 12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
2002/03	1.060	1.000	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2003/04	1.040	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
2004/05	1.044	1.002	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
2005/06	1.041	1.002	1.000	1.000	1.000	1.000	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
2006/07	1.028	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
2007/08	1.012	1.000	1.000	1.000	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000						
2008/09	1.027	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000							
2009/10	1.020	1.002	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000								
2010/11	1.011	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000									
2011/12	1.046	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000										
2012/13	1.018	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000											
2013/14	1.033	1.000	1.000	1.000	1.000	1.000	1.000	1.000												
2014/15	1.016	1.003	1.000	1.003	1.000	1.000	1.000													
2015/16	1.010	1.000	1.000	1.000	1.000	1.000														
2016/17	1.029	1.000	1.000	1.000	1.000															
2017/18	1.031	1.000	1.000	1.000																
2018/19	1.009	1.000	1.000																	
2019/20	1.021	1.000																		
2020/21	1.010																			
2021/22																				
Average																				
All	1.027	1.001	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	1.000	1.000	1.000	
Wtd 3	1.013	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
Last 3	1.013	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
Last 5	1.020	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
x-hi,low																				
Previous	1.050	1.006	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	1.040	1.006	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative	1.048	1.008	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Percent Claims Reported	95.4%	99.2%	99.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Section I was provided by the City and previous actuarial studies.

Developed Limited Paid Losses, Reported Incurred Losses and Case Reserves

Claim Period (1)	Months of Development 9/30/22 (2)	Percent Losses Paid (3)	Percent Losses Reported (4)	Percent Losses Reserved 9/30/22 ((4)-(3))/ (100.0%-(3)) (5)	Limited Paid Losses 9/30/22 (6)	Limited Case Reserves 9/30/22 (7)	Limited Reported Incurred Losses 9/30/22 (8)	Developed Limited Paid Losses (6)/(3) (9)	Developed Limited Reported Incurred Losses (8)/(4) (10)	Developed Limited Case Reserves (6)+(7)/(5) (11)
to 1995/96	324.0	91.6%	95.5%	46.7%	$24,128,733	$537,626	$24,666,359	$25,608,328 *	$25,447,618 *	$25,272,104 *
1996/97	312.0	90.7%	95.1%	46.6%	3,696,975	244,791	3,941,766	3,921,016 *	4,068,768 *	4,222,576
1997/98	300.0	89.8%	94.5%	46.4%	1,412,132	289,571	1,701,703	1,573,018	1,800,327	2,035,680
1998/99	288.0	88.7%	93.9%	46.3%	2,034,034	516,792	2,550,826	2,293,100	2,715,608	3,150,456
1999/00	276.0	87.5%	93.3%	46.1%	3,713,233	516,784	4,230,017	4,242,306	4,534,705	4,833,648
2000/01	264.0	86.2%	92.6%	45.9%	3,759,405	966,060	4,725,465	4,359,098	5,105,142	5,862,265
2001/02	252.0	84.8%	91.8%	45.7%	10,164,590	2,628,639	12,793,229	11,981,450	13,940,318	15,912,017
2002/03	240.0	83.3%	90.9%	45.5%	4,253,103	708,638	4,961,741	5,105,766	5,458,461	5,810,242
2003/04	228.0	81.7%	90.0%	45.4%	2,430,421	110,630	2,541,051	2,974,812	2,823,390	2,674,340
2004/05	216.0	79.3%	89.0%	46.9%	4,390,910	617,711	5,008,621	5,537,087	5,627,664	5,709,118
2005/06	204.0	76.3%	85.7%	39.7%	3,469,656	158,431	3,628,087	4,547,387	4,233,474	3,869,104
2006/07	192.0	73.7%	85.0%	43.0%	2,894,438	84,651	2,979,089	3,927,324	3,504,811	3,091,458
2007/08	180.0	72.0%	83.4%	40.7%	3,891,599	183,569	4,075,168	5,404,999	4,886,293	4,342,470
2008/09	168.0	70.9%	82.2%	38.8%	3,520,304	607,598	4,127,902	4,965,168	5,021,779	5,085,003
2009/10	156.0	70.1%	82.9%	42.8%	2,237,622	36,191	2,273,813	3,192,043	2,742,838	2,322,162
2010/11	144.0	68.9%	81.4%	40.2%	5,815,868	2,905,514	8,721,382	8,441,028	10,714,229	13,044,787
2011/12	132.0	67.3%	80.8%	41.3%	2,460,317	193,936	2,654,253	3,655,746	3,284,967	2,930,073
2012/13	120.0	65.6%	83.5%	52.0%	2,470,371	171,275	2,641,646	3,765,809	3,163,648	2,799,525
2013/14	108.0	63.9%	73.9%	27.7%	1,752,457	106,466	1,858,923	2,742,499	2,515,457	2,136,799
2014/15	96.0	62.2%	73.6%	30.2%	2,060,140	788,843	2,848,983	3,312,122	3,870,901	4,675,777
2015/16	84.0	61.2%	71.4%	26.3%	2,513,307	326,665	2,839,972	4,106,711	3,977,552	3,755,915
2016/17	72.0	59.7%	75.0%	38.0%	2,473,714	750,446	3,224,160	4,143,575	4,298,880	4,450,379
2017/18	60.0	57.0%	67.1%	23.5%	1,501,340	177,881	1,679,221	2,633,930	2,502,565	2,258,655
2018/19	48.0	54.2%	66.7%	27.3%	2,529,837	103,774	2,633,611	4,667,596	3,948,442	2,910,065
2019/20	36.0	50.0%	57.8%	15.6%	2,073,195	154,995	2,228,190	4,146,390	3,855,000	3,066,753
2020/21	24.0	44.6%	53.0%	15.2%	4,074,492	582,459	4,656,951	8,327,453 *	7,621,511 *	5,859,851 *
2021/22	12.0	25.0%	41.8%	22.4%	726,591	729,033	1,455,624	2,906,364	3,482,354	3,981,203

* - Indicates large claim(s) limited to retention. For details, see Exhibit WC-13.

(3) and (4) are based on Exhibit WC-2 (page 1).

(6), (7) and (8) are from Exhibit WC-1.

Preliminary Projected Ultimate Limited Losses to 2021/22

Claim Period (1)	Developed Limited Paid Losses (2)	Developed Limited Reported Incurred Losses (3)	Developed Limited Case Reserves (4)	Preliminary Projected Ultimate Limited Losses (5)
to 1995/96	$25,608,328	$25,447,618	$25,272,104	$25,541,359
1996/97	3,921,016	4,068,768	4,222,576	4,222,576
1997/98	1,573,018	1,800,327	2,035,680	2,035,680
1998/99	2,293,100	2,715,608	3,150,456	3,150,456
1999/00	4,242,306	4,534,705	4,833,648	4,833,648
2000/01	4,359,098	5,105,142	5,862,265	5,862,265
2001/02	11,981,450	13,940,318	15,912,017	15,912,017
2002/03	5,105,766	5,458,461	5,810,242	5,810,242
2003/04	2,974,812	2,823,390	2,674,340	2,741,051
2004/05	5,537,087	5,627,664	5,709,118	5,709,118
2005/06	4,547,387	4,233,474	3,869,104	3,869,104
2006/07	3,927,324	3,504,811	3,091,458	3,104,089
2007/08	5,404,999	4,886,293	4,342,470	4,342,470
2008/09	4,965,168	5,021,779	5,085,003	5,085,003
2009/10	3,192,043	2,742,838	2,322,162	2,373,813
2010/11	8,441,028	10,714,229	13,044,787	13,044,787
2011/12	3,655,746	3,284,967	2,930,073	2,930,073
2012/13	3,765,809	3,163,648	2,799,525	2,866,646
2013/14	2,742,499	2,515,457	2,136,799	2,212,531
2014/15	3,312,122	3,870,901	4,675,777	4,434,314
2015/16	4,106,711	3,977,552	3,755,915	3,844,570
2016/17	4,143,575	4,298,880	4,450,379	4,374,629
2017/18	2,633,930	2,502,565	2,258,655	2,431,274
2018/19	4,667,596	3,948,442	2,910,065	3,676,922
2019/20	4,146,390	3,855,000	3,066,753	3,597,979
2020/21	8,327,453	7,621,511	5,859,851	7,058,035
2021/22	2,906,364	3,482,354	3,981,203	3,981,203

(2), (3) and (4) are from Exhibit WC-3.

(5) is based on (2) to (4), weighted as follows:

Subject to a minimum of Exhibit WC-1, (10) and minimum 50% of case reserves or $25,000 per open claim as IBNR for claim periods with open claims.

Claim Period	Developed Limited Paid Losses	Developed Limited Reported Incurred Losses	Developed Limited Case Reserves
to 2007/08	0.0%	0.0%	100.0%
2008/09	0.0%	0.0%	100.0%
2009/10	0.0%	0.0%	100.0%
2010/11	0.0%	0.0%	100.0%
2011/12	0.0%	0.0%	100.0%
2012/13	0.0%	10.0%	90.0%
2013/14	0.0%	20.0%	80.0%
2014/15	0.0%	30.0%	70.0%
2015/16	0.0%	40.0%	60.0%
2016/17	0.0%	50.0%	50.0%
2017/18	20.0%	40.0%	40.0%
2018/19	20.0%	40.0%	40.0%
2019/20	20.0%	40.0%	40.0%
2020/21	20.0%	40.0%	40.0%
2021/22	0.0%	0.0%	100.0%

City of Miami Beach, Florida
Workers' Compensation

Bornhuetter - Ferguson Analysis

I. A-priori Loss Rate

Claim Period (1)	Preliminary Projected Ultimate Limited Losses (2)	Payroll (000) (3)	Limited Loss Rate per $100 of Payroll (2)/(3)/10 (4)	Loss Rate Trend (2022/23 = 1.000) (5)	Trended Limited Loss Rate per $100 of Payroll (4)X(5) (6)	Projected A-priori Loss Rate per $100 of Payroll (7)/(5) (8)
2017/18	$2,431,274	$164,071	$1.48	0.998	$1.48	$2.71
2018/19	3,676,922	164,860	2.23	1.041	2.32	2.60
2019/20	3,597,979	166,025	2.17	1.030	2.23	2.63
2020/21	7,058,035	168,443	4.19	1.020	4.27	2.65
2021/22	3,981,203	173,411	2.30	1.010	2.32	2.68

(7) Projected 2022/23 a-priori loss rate per $100 of Payroll $2.71

II. Bornhuetter - Ferguson Analysis Based on Limited Paid Losses

Claim Period (1)	Limited Paid Losses 9/30/22 (2)	Percent Losses Paid (3)	Projected A-priori Loss Rate per $100 of Payroll (4)	Payroll (000) (5)	B-F Unpaid Losses (100.0%-(3)) X(4)X(5)X10 (6)	B-F Ultimate Limited Paid Losses (2)+(6) (7)
2017/18	$1,501,340	57.0%	$2.71	$164,071	$1,912,662	$3,414,002
2018/19	2,529,837	54.2%	2.60	164,860	1,964,100	4,493,937
2019/20	2,073,195	50.0%	2.63	166,025	2,180,958	4,254,153
2020/21	4,074,492	44.6%	2.65	168,443	2,476,217	6,550,709
2021/22	726,591	25.0%	2.68	173,411	3,485,669	4,212,260

III. Bornhuetter - Ferguson Analysis Based on Limited Reported Incurred Losses

Claim Period (1)	Limited Reported Incurred Losses 9/30/22 (2)	Percent Losses Reported (3)	Projected A-priori Loss Rate per $100 of Payroll (4)	Payroll (000) (5)	B-F Unreported Losses (100.0%-(3)) X(4)X(5)X10 (6)	B-F Ultimate Limited Reported Losses (2)+(6) (7)
2017/18	$1,679,221	67.1%	$2.71	$164,071	$1,463,409	$3,142,630
2018/19	2,633,611	66.7%	2.60	164,860	1,428,046	4,061,657
2019/20	2,228,190	57.8%	2.63	166,025	1,840,729	4,068,919
2020/21	4,656,951	53.0%	2.65	168,443	2,100,762	6,757,713
2021/22	1,455,624	41.8%	2.68	173,411	2,704,879	4,160,503

Section I, (2) is from Exhibit WC-4.

Section I, (3), Section II, (5) and Section III, (5) were provided by the City.

Section I, (5) is from Exhibit WC-12.

Section I, (7) is based on Section I, (6) and the following weights:

Claim Period	Weight
2017/18	10.0%
2018/19	15.0%
2019/20	20.0%
2020/21	25.0%
2021/22	30.0%

Sections II and III, (2) are from Exhibit WC-1.

Sections II and III, (3) are based on Exhibit WC-2 (page 1).

Sections II and III, (4) are from Section I, (8).

City of Miami Beach, Florida
Workers' Compensation

Frequency Times Severity Analysis

I. Projected Ultimate Claims

Claim Period (1)	Months of Development 9/30/22 (2)	Reported Claims 9/30/22 (3)	Percent Claims Reported (4)	Projected Ultimate Claims (3)/(4) (5)	Reported Open Claims 9/30/22 (6)	Number of IBNR Claims (5)-(3) (7)	Open Claims 9/30/22 (6)+(7) (8)
2017/18	60.0	297	100.0%	297	2	0	2
2018/19	48.0	321	100.0%	321	6	0	6
2019/20	36.0	297	99.8%	298	7	1	8
2020/21	24.0	413	99.2%	416	13	3	16
2021/22	12.0	322	95.4%	338	64	16	80

II. Frequency Times Severity

Claim Period (1)	Preliminary Projected Ultimate Limited Losses (2)	Projected Ultimate Claims (3)	Average Severity (2)/(3) (4)	Severity Trend (2022/23 = 1.000) (5)	Trended Average Claim Severity (4)X(5) (6)	De-Trended Projected 2022/23 Average Claim Severity (7)/(5) (8)	Frequency Times Severity (3)X(8) (9)
2017/18	$2,431,274	297	$8,186	1.102	$9,024	$11,841	$3,516,893
2018/19	3,676,922	321	11,455	1.126	12,902	11,589	3,720,085
2019/20	3,597,979	298	12,074	1.093	13,201	11,939	3,557,834
2020/21	7,058,035	416	16,966	1.061	18,007	12,300	5,116,633
2021/22	3,981,203	338	11,779	1.030	12,134	12,671	4,282,814
	(7) Projected 2022/23 average claim severity				$13,054		

Section I, (3) and (6) are from Exhibit WC-1.

Section I, (4) is from Exhibit WC-2.

Section II, (2) is from Exhibit WC-4.

Section II, (3) is from Section I, (5).

Section II, (5) is from Exhibit WC-12.

Section II, (7) is based on (6) and the following weights:

Claim Period	Weight
2017/18	20.0%
2018/19	20.0%
2019/20	20.0%
2020/21	20.0%
2021/22	20.0%

Projected Ultimate Limited Losses to 2021/22

Claim Period (1)	Developed Limited Paid Losses (2)	Developed Limited Reported Incurred Losses (3)	Developed Limited Case Reserves (4)	B-F Paid Method Ultimate Losses (5)	B-F Reported Method Ultimate Losses (6)	Frequency Times Severity (7)	Previous Projected Ultimate Limited Losses (9/30/21) (8)	Projected Ultimate Limited Losses (9)	Change in Projected Ultimate Limited Losses (9)-(8) (10)
to 1995/96	$25,608,328	$25,447,618	$25,272,104				$25,488,156	$25,541,359	$53,203
1996/97	3,921,016	4,068,768	4,222,576				4,083,613	4,222,576	138,963
1997/98	1,573,018	1,800,327	2,035,680				1,784,769	2,035,680	250,911
1998/99	2,293,100	2,715,608	3,150,456				2,995,769	3,150,456	154,687
1999/00	4,242,306	4,534,705	4,833,648				4,702,034	4,833,648	131,614
2000/01	4,359,098	5,105,142	5,862,265				5,043,679	5,862,265	818,586
2001/02	11,981,450	13,940,318	15,912,017				14,132,443	13,940,318	(192,125)
2002/03	5,105,766	5,458,461	5,810,242				5,791,857	5,810,242	18,385
2003/04	2,974,812	2,823,390	2,674,340				2,718,109	2,741,051	22,942
2004/05	5,537,087	5,627,664	5,709,118				5,555,803	5,709,118	153,315
2005/06	4,547,387	4,233,474	3,869,104				3,947,365	3,869,104	(78,261)
2006/07	3,927,324	3,504,811	3,091,458				3,273,071	3,104,089	(168,982)
2007/08	5,404,999	4,886,293	4,342,470				4,605,099	4,342,470	(262,628)
2008/09	4,965,168	5,021,779	5,085,003				4,968,076	5,059,713	91,637
2009/10	3,192,043	2,742,838	2,322,162				2,812,737	2,490,432	(322,304)
2010/11	8,441,028	10,714,229	13,044,787				10,307,652	10,174,139	(133,513)
2011/12	3,655,746	3,284,967	2,930,073				3,157,844	3,289,732	131,889
2012/13	3,765,809	3,163,648	2,799,525				3,188,629	2,981,587	(207,042)
2013/14	2,742,499	2,515,457	2,136,799				2,454,016	2,530,542	76,526
2014/15	3,312,122	3,870,901	4,675,777				4,059,054	3,920,120	(138,934)
2015/16	4,106,711	3,977,552	3,755,915				3,989,449	3,959,056	(30,392)
2016/17	4,143,575	4,298,880	4,450,379				4,356,200	4,328,418	(27,781)
2017/18	2,633,930	2,502,565	2,258,655	3,414,002	3,142,630	3,516,893	2,607,245	2,570,767	(36,477)
2018/19	4,667,596	3,948,442	2,910,065	4,493,937	4,061,657	3,720,085	4,132,631	3,917,533	(215,098)
2019/20	4,146,390	3,855,000	3,066,753	4,254,153	4,068,919	3,557,834	4,010,247	3,736,596	(273,651)
2020/21	8,327,453	7,621,511	5,859,851	6,550,709	6,757,713	5,116,633	6,986,132	7,049,388	63,256
2021/22	2,906,364	3,482,354	3,981,203	4,212,260	4,160,503	4,282,814	4,859,905	4,524,828	(335,077)

(2), (3) and (4) are from Exhibit WC-3.

(5) and (6) are from Exhibit WC-5.

(7) is from Exhibit WC-6.

(8) is from the previous study.

(9) is based on (2) to (8), weighted as follows:

Subject to a minimum of Exhibit WC-1, (10) and minimum 50% of case reserves or $25,000 per open claim as IBNR for claim periods with open claims.

Claim Period	Developed Limited Paid Losses	Developed Limited Reported Incurred Losses	Developed Limited Case Reserves	B-F Paid Method Ultimate Losses	B-F Reported Method Ultimate Losses	Frequency Times Severity	Previous Projected Ultimate Limited Losses	
to 2007/08	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	
2008/09	0.0%	40.0%	60.0%	0.0%	0.0%	0.0%	0.0%	
2009/10	0.0%	40.0%	60.0%	0.0%	0.0%	0.0%	0.0%	
2010/11	30.0%	70.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
2011/12	30.0%	40.0%	30.0%	0.0%	0.0%	0.0%	0.0%	
2012/13	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	
2013/14	40.0%	40.0%	20.0%	0.0%	0.0%	0.0%	0.0%	
2014/15	20.0%	60.0%	20.0%	0.0%	0.0%	0.0%	0.0%	
2015/16	20.0%	60.0%	20.0%	0.0%	0.0%	0.0%	0.0%	
2016/17	20.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	
2017/18	30.0%	40.0%	20.0%	5.0%	5.0%	0.0%	0.0%	
2018/19	20.0%	50.0%	20.0%	5.0%	5.0%	0.0%	0.0%	
2019/20	30.0%	30.0%	30.0%	5.0%	5.0%	0.0%	0.0%	
2020/21	20.0%	35.0%	35.0%	5.0%	5.0%	0.0%	0.0%	
2021/22	0.0%	0.0%	30.0%	35.0%	35.0%	0.0%	0.0%	plus $400,000 (see text)
Total Last 5	$22,681,733	$21,409,872	$18,076,526	$22,925,060	$22,191,421	$20,194,259	$22,596,160	

Average projected ultimate limited losses total last 5, excluding previous: $21,246,479
Projected ultimate limited losses total last 5 $21,799,113

Projected Ultimate Limited Losses for 2022/23 and Subsequent

Claim Period (1)	Projected Ultimate Limited Losses (2)	Payroll (000) (3)	Limited Loss Rate per $100 of Payroll (2)/(3)/10 (4)	Loss Rate Trend (2022/23 = 1.000) (5)	Trended Limited Loss Rate per $100 of Payroll (4)X(5) (6)
2017/18	$2,570,767	$164,071	$1.57	0.998	$1.56
2018/19	3,917,533	164,860	2.38	1.041	2.47
2019/20	3,736,596	166,025	2.25	1.030	2.32
2020/21	7,049,388	168,443	4.19	1.020	4.27
2021/22	4,524,828	173,411	2.61	1.010	2.64
Total	$21,799,113	$836,810	$2.61		$2.65

Claim Period (1)	Projected Limited Loss Rate per $100 of Payroll (7)	Projected Payroll (000) (8)	Projected Ultimate Limited Losses (7)X(8)X10 (9)	Present Value Factor (10)	Present Value of Projected Limited Loss Rate per $100 of Payroll (7)X(10) (11)	Present Value of Projected Ultimate Limited Losses (8)X(11)X10 (12)
2022/23	$2.78	$182,082	$5,068,053	0.76	$2.12	$3,856,789
2023/24	2.81	191,186	5,374,672	0.76	2.14	4,090,125
2024/25	2.84	200,745	5,699,839	0.76	2.16	4,337,578
2025/26	2.87	210,783	6,044,680	0.76	2.18	4,600,001
2026/27	2.90	221,322	6,410,383	0.76	2.20	4,878,301

(2) is from Exhibit WC-7.

(3) was provided by the City.

(5) is from Exhibit WC-12.

(7) for 2022/23 is based on (6) and the following weights:

Claim Period	Weight
2017/18	13.3%
2018/19	16.7%
2019/20	20.0%
2020/21	23.3%
2021/22	26.7%

(7) for 2023/24 and subsequent are based on 2022/23 plus the trend in Exhibit WC-12.

(8) is based on (3) for 2021/22 and a 5% trend.

(10) is based on a 4% interest rate and the payout pattern in Exhibit WC-2 (page 1).

City of Miami Beach, Florida
Workers' Compensation

Estimated Outstanding Losses as of September 30, 2022

Claim Period (1)	Limited Paid Losses 9/30/22 (2)	Limited Case Reserves 9/30/22 (3)	Limited Reported Incurred Losses 9/30/22 (4)	Projected Ultimate Limited Losses (5)	Estimated Outstanding Losses 9/30/22 (5)-(2) (6)	Estimated IBNR 9/30/22 (6)-(3) (7)
to 1995/96	$24,128,733	$537,626	$24,666,359	$25,541,359	$1,412,626	$875,000
1996/97	3,696,975	244,791	3,941,766	4,222,576	525,601	280,810
1997/98	1,412,132	289,571	1,701,703	2,035,680	623,548	333,977
1998/99	2,034,034	516,792	2,550,826	3,150,456	1,116,422	599,630
1999/00	3,713,233	516,784	4,230,017	4,833,648	1,120,415	603,631
2000/01	3,759,405	966,060	4,725,465	5,862,265	2,102,860	1,136,800
2001/02	10,164,590	2,628,639	12,793,229	13,940,318	3,775,728	1,147,089
2002/03	4,253,103	708,638	4,961,741	5,810,242	1,557,139	848,501
2003/04	2,430,421	110,630	2,541,051	2,741,051	310,630	200,000
2004/05	4,390,910	617,711	5,008,621	5,709,118	1,318,208	700,497
2005/06	3,469,656	158,431	3,628,087	3,869,104	399,448	241,017
2006/07	2,894,438	84,651	2,979,089	3,104,089	209,651	125,000
2007/08	3,891,599	183,569	4,075,168	4,342,470	450,871	267,302
2008/09	3,520,304	607,598	4,127,902	5,059,713	1,539,409	931,811
2009/10	2,237,622	36,191	2,273,813	2,490,432	252,810	216,619
2010/11	5,815,868	2,905,514	8,721,382	10,174,139	4,358,271	1,452,757
2011/12	2,460,317	193,936	2,654,253	3,289,732	829,415	635,479
2012/13	2,470,371	171,275	2,641,646	2,981,587	511,216	339,941
2013/14	1,752,457	106,466	1,858,923	2,530,542	778,085	671,619
2014/15	2,060,140	788,843	2,848,983	3,920,120	1,859,980	1,071,137
2015/16	2,513,307	326,665	2,839,972	3,959,056	1,445,749	1,119,084
2016/17	2,473,714	750,446	3,224,160	4,328,418	1,854,704	1,104,258
2017/18	1,501,340	177,881	1,679,221	2,570,767	1,069,427	891,546
2018/19	2,529,837	103,774	2,633,611	3,917,533	1,387,696	1,283,922
2019/20	2,073,195	154,995	2,228,190	3,736,596	1,663,401	1,508,406
2020/21	4,074,492	582,459	4,656,951	7,049,388	2,974,896	2,392,437
2021/22	726,591	729,033	1,455,624	4,524,828	3,798,237	3,069,204
Total	$106,448,784	$15,198,969	$121,647,753	$145,695,231	$39,246,443	$24,047,474

(2), (3) and (4) are from Exhibit WC-1, and net of the specific self insured retention and aggregate retention.

(5) is from Exhibit WC-7.

City of Miami Beach, Florida
Workers' Compensation

Present Value of Estimated Outstanding Losses as of December 31, 2021

Claim Period (1)	Estimated Outstanding Losses 9/30/22 (2)	Present Value Factor (3)	Present Value of Estimated Outstanding Losses 9/30/22 (2)X(3) (4)	Anticipated Future Investment Income (2)-(4) (5)
to 1995/96	$1,412,626	0.92	$1,295,378	$117,248
1996/97	525,601	0.89	468,310	57,291
1997/98	623,548	0.87	541,863	81,685
1998/99	1,116,422	0.85	947,842	168,580
1999/00	1,120,415	0.83	932,185	188,230
2000/01	2,102,860	0.82	1,718,037	384,823
2001/02	3,775,728	0.80	3,031,910	743,818
2002/03	1,557,139	0.79	1,233,254	323,885
2003/04	310,630	0.78	242,291	68,339
2004/05	1,318,208	0.78	1,024,248	293,960
2005/06	399,448	0.78	310,371	89,077
2006/07	209,651	0.77	161,431	48,220
2007/08	450,871	0.76	340,408	110,463
2008/09	1,539,409	0.74	1,133,005	406,404
2009/10	252,810	0.72	180,759	72,051
2010/11	4,358,271	0.70	3,042,073	1,316,198
2011/12	829,415	0.69	569,808	259,607
2012/13	511,216	0.68	345,582	165,634
2013/14	778,085	0.67	518,205	259,880
2014/15	1,859,980	0.66	1,218,287	641,693
2015/16	1,445,749	0.64	923,834	521,915
2016/17	1,854,704	0.63	1,164,754	689,950
2017/18	1,069,427	0.63	671,600	397,827
2018/19	1,387,696	0.63	870,085	517,611
2019/20	1,663,401	0.63	1,054,596	608,805
2020/21	2,974,896	0.65	1,921,783	1,053,113
2021/22	3,798,237	0.72	2,715,739	1,082,498
Total	$39,246,443		$28,577,638	$10,668,805

(2) is from Exhibit WC-9.

(3) is based on a 4% interest rate and the payout pattern in Exhibit WC-2 (page 1).

City of Miami Beach, Florida
Workers' Compensation

Projected Losses Paid October 1, 2022 to September 30, 2023

Claim Period (1)	Months of Development 9/30/22 (2)	Percent Losses Paid (3)	Months of Development 9/30/23 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/22 to 9/30/23 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/22 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/23 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/23 (9)X(10) (11)
to 1995/96	324.0	91.6%	336.0	92.4%	9.6%	$1,412,626	$135,772	$1,276,854	0.95	$1,209,181
1996/97	312.0	90.7%	324.0	91.6%	9.6%	525,601	50,293	475,308	0.92	435,857
1997/98	300.0	89.8%	312.0	90.7%	9.5%	623,548	59,371	564,177	0.89	502,682
1998/99	288.0	88.7%	300.0	89.8%	9.5%	1,116,422	105,716	1,010,706	0.87	878,304
1999/00	276.0	87.5%	288.0	88.7%	9.4%	1,120,415	105,446	1,014,969	0.85	861,709
2000/01	264.0	86.2%	276.0	87.5%	9.3%	2,102,860	196,559	1,906,301	0.83	1,586,042
2001/02	252.0	84.8%	264.0	86.2%	9.3%	3,775,728	350,250	3,425,478	0.82	2,798,616
2002/03	240.0	83.3%	252.0	84.8%	9.2%	1,557,139	143,225	1,413,914	0.80	1,135,373
2003/04	228.0	81.7%	240.0	83.3%	8.7%	310,630	27,159	283,471	0.79	224,509
2004/05	216.0	79.3%	228.0	81.7%	11.6%	1,318,208	152,836	1,165,372	0.78	908,990
2005/06	204.0	76.3%	216.0	79.3%	12.7%	399,448	50,563	348,885	0.78	271,084
2006/07	192.0	73.7%	204.0	76.3%	9.9%	209,651	20,726	188,925	0.78	146,795
2007/08	180.0	72.0%	192.0	73.7%	6.1%	450,871	27,374	423,497	0.77	326,093
2008/09	168.0	70.9%	180.0	72.0%	3.8%	1,539,409	58,191	1,481,218	0.76	1,118,320
2009/10	156.0	70.1%	168.0	70.9%	2.7%	252,810	6,764	246,046	0.74	181,090
2010/11	144.0	68.9%	156.0	70.1%	3.9%	4,358,271	168,165	4,190,106	0.72	2,995,926
2011/12	132.0	67.3%	144.0	68.9%	4.9%	829,415	40,583	788,832	0.70	550,605
2012/13	120.0	65.6%	132.0	67.3%	4.9%	511,216	25,264	485,952	0.69	333,849
2013/14	108.0	63.9%	120.0	65.6%	4.7%	778,085	36,641	741,444	0.68	501,216
2014/15	96.0	62.2%	108.0	63.9%	4.5%	1,859,980	83,650	1,776,330	0.67	1,183,036
2015/16	84.0	61.2%	96.0	62.2%	2.6%	1,445,749	37,262	1,408,487	0.66	922,559
2016/17	72.0	59.7%	84.0	61.2%	3.7%	1,854,704	69,034	1,785,670	0.64	1,141,043
2017/18	60.0	57.0%	72.0	59.7%	6.3%	1,069,427	67,150	1,002,277	0.63	629,430
2018/19	48.0	54.2%	60.0	57.0%	6.1%	1,387,696	84,837	1,302,859	0.63	818,195
2019/20	36.0	50.0%	48.0	54.2%	8.4%	1,663,401	139,726	1,523,675	0.63	955,344
2020/21	24.0	44.6%	36.0	50.0%	9.7%	2,974,896	289,972	2,684,924	0.63	1,702,242
2021/22	12.0	25.0%	24.0	44.6%	26.1%	3,798,237	992,606	2,805,631	0.65	1,812,438
2022/23	0.0	0.0%	12.0	25.0%	25.0%	5,068,053	1,267,013	3,801,040	0.72	2,717,744
Total						$44,314,496	$4,792,148	$39,522,348		$28,848,272

(3) and (5) are from Exhibit WC-2 (page 1).

(7) to 2021/22 is from Exhibit WC-9. The amount for 2022/23 is from Exhibit WC-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit WC-2 (page 1).

City of Miami Beach, Florida
Workers' Compensation

Projected Losses Paid October 1, 2023 to September 30, 2024

Claim Period (1)	Months of Development 9/30/23 (2)	Percent Losses Paid (3)	Months of Development 9/30/24 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/23 to 9/30/24 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/23 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/24 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/24 (9)X(10) (11)
to 1995/96	336.0	92.4%	348.0	93.2%	9.6%	$1,276,854	$123,214	$1,153,640	0.98	$1,131,721
1996/97	324.0	91.6%	336.0	92.4%	9.6%	475,308	45,683	429,625	0.95	406,855
1997/98	312.0	90.7%	324.0	91.6%	9.6%	564,177	53,984	510,193	0.92	467,847
1998/99	300.0	89.8%	312.0	90.7%	9.5%	1,010,706	96,234	914,472	0.89	814,795
1999/00	288.0	88.7%	300.0	89.8%	9.5%	1,014,969	96,109	918,860	0.87	798,489
2000/01	276.0	87.5%	288.0	88.7%	9.4%	1,906,301	179,408	1,726,893	0.85	1,466,132
2001/02	264.0	86.2%	276.0	87.5%	9.3%	3,425,478	320,187	3,105,291	0.83	2,583,602
2002/03	252.0	84.8%	264.0	86.2%	9.3%	1,413,914	131,160	1,282,754	0.82	1,048,010
2003/04	240.0	83.3%	252.0	84.8%	9.2%	283,471	26,074	257,397	0.80	206,690
2004/05	228.0	81.7%	240.0	83.3%	8.7%	1,165,372	101,890	1,063,482	0.79	842,278
2005/06	216.0	79.3%	228.0	81.7%	11.6%	348,885	40,450	308,435	0.78	240,579
2006/07	204.0	76.3%	216.0	79.3%	12.7%	188,925	23,915	165,010	0.78	128,213
2007/08	192.0	73.7%	204.0	76.3%	9.9%	423,497	41,867	381,630	0.78	296,527
2008/09	180.0	72.0%	192.0	73.7%	6.1%	1,481,218	89,931	1,391,287	0.77	1,071,291
2009/10	168.0	70.9%	180.0	72.0%	3.8%	246,046	9,301	236,745	0.76	178,742
2010/11	156.0	70.1%	168.0	70.9%	2.7%	4,190,106	112,110	4,077,996	0.74	3,001,405
2011/12	144.0	68.9%	156.0	70.1%	3.9%	788,832	30,437	758,395	0.72	542,252
2012/13	132.0	67.3%	144.0	68.9%	4.9%	485,952	23,777	462,175	0.70	322,598
2013/14	120.0	65.6%	132.0	67.3%	4.9%	741,444	36,641	704,803	0.69	484,200
2014/15	108.0	63.9%	120.0	65.6%	4.7%	1,776,330	83,650	1,692,680	0.68	1,144,252
2015/16	96.0	62.2%	108.0	63.9%	4.5%	1,408,487	63,345	1,345,142	0.67	895,865
2016/17	84.0	61.2%	96.0	62.2%	2.6%	1,785,670	46,022	1,739,648	0.66	1,139,469
2017/18	72.0	59.7%	84.0	61.2%	3.7%	1,002,277	37,306	964,971	0.64	616,616
2018/19	60.0	57.0%	72.0	59.7%	6.3%	1,302,859	81,807	1,221,052	0.63	766,821
2019/20	48.0	54.2%	60.0	57.0%	6.1%	1,523,675	93,150	1,430,525	0.63	898,370
2020/21	36.0	50.0%	48.0	54.2%	8.4%	2,684,924	225,534	2,459,390	0.63	1,542,038
2021/22	24.0	44.6%	36.0	50.0%	9.7%	2,805,631	273,473	2,532,158	0.63	1,605,388
2022/23	12.0	25.0%	24.0	44.6%	26.1%	3,801,040	993,338	2,807,702	0.65	1,813,775
2023/24	0.0	0.0%	12.0	25.0%	25.0%	5,374,672	1,343,668	4,031,004	0.72	2,882,168
Total						$44,897,020	$4,823,665	$40,073,355		$29,336,988

(3) and (5) are from Exhibit WC-2 (page 1).

(7) to 2022/23 is from Exhibit WC-11 (page 1), (9). The amount for 2023/24 is from Exhibit WC-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit WC-2 (page 1).

City of Miami Beach, Florida
Workers' Compensation

Projected Losses Paid October 1, 2024 to September 30, 2025

Claim Period (1)	Months of Development 9/30/24 (2)	Percent Losses Paid (3)	Months of Development 9/30/25 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/24 to 9/30/25 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/24 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/25 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/25 (9)X(10) (11)
to 1995/96	348.0	93.2%	360.0	100.0%	9.6%	$1,153,640	$111,324	$1,042,316	0.98	$1,022,512
1996/97	336.0	92.4%	348.0	93.2%	9.6%	429,625	41,458	388,167	0.98	380,792
1997/98	324.0	91.6%	336.0	92.4%	9.6%	510,193	49,036	461,157	0.95	436,716
1998/99	312.0	90.7%	324.0	91.6%	9.6%	914,472	87,503	826,969	0.92	758,331
1999/00	300.0	89.8%	312.0	90.7%	9.5%	918,860	87,489	831,371	0.89	740,752
2000/01	288.0	88.7%	300.0	89.8%	9.5%	1,726,893	163,523	1,563,370	0.87	1,358,569
2001/02	276.0	87.5%	288.0	88.7%	9.4%	3,105,291	292,248	2,813,043	0.85	2,388,274
2002/03	264.0	86.2%	276.0	87.5%	9.3%	1,282,754	119,902	1,162,852	0.83	967,493
2003/04	252.0	84.8%	264.0	86.2%	9.3%	257,397	23,877	233,520	0.82	190,786
2004/05	240.0	83.3%	252.0	84.8%	9.2%	1,063,482	97,819	965,663	0.80	775,427
2005/06	228.0	81.7%	240.0	83.3%	8.7%	308,435	26,967	281,468	0.79	222,923
2006/07	216.0	79.3%	228.0	81.7%	11.6%	165,010	19,132	145,878	0.78	113,785
2007/08	204.0	76.3%	216.0	79.3%	12.7%	381,630	48,308	333,322	0.78	258,991
2008/09	192.0	73.7%	204.0	76.3%	9.9%	1,391,287	137,542	1,253,745	0.78	974,160
2009/10	180.0	72.0%	192.0	73.7%	6.1%	236,745	14,374	222,371	0.77	171,226
2010/11	168.0	70.9%	180.0	72.0%	3.8%	4,077,996	154,151	3,923,845	0.76	2,962,503
2011/12	156.0	70.1%	168.0	70.9%	2.7%	758,395	20,292	738,103	0.74	543,244
2012/13	144.0	68.9%	156.0	70.1%	3.9%	462,175	17,833	444,342	0.72	317,705
2013/14	132.0	67.3%	144.0	68.9%	4.9%	704,803	34,486	670,317	0.70	467,881
2014/15	120.0	65.6%	132.0	67.3%	4.9%	1,692,680	83,650	1,609,030	0.69	1,105,404
2015/16	108.0	63.9%	120.0	65.6%	4.7%	1,345,142	63,345	1,281,797	0.68	866,495
2016/17	96.0	62.2%	108.0	63.9%	4.5%	1,739,648	78,238	1,661,410	0.67	1,106,499
2017/18	84.0	61.2%	96.0	62.2%	2.6%	964,971	24,870	940,101	0.66	615,766
2018/19	72.0	59.7%	84.0	61.2%	3.7%	1,221,052	45,449	1,175,603	0.64	751,210
2019/20	60.0	57.0%	72.0	59.7%	6.3%	1,430,525	89,824	1,340,701	0.63	841,960
2020/21	48.0	54.2%	60.0	57.0%	6.1%	2,459,390	150,356	2,309,034	0.63	1,450,073
2021/22	36.0	50.0%	48.0	54.2%	8.4%	2,532,158	212,701	2,319,457	0.63	1,454,300
2022/23	24.0	44.6%	36.0	50.0%	9.7%	2,807,702	273,675	2,534,027	0.63	1,606,573
2023/24	12.0	25.0%	24.0	44.6%	26.1%	4,031,004	1,053,436	2,977,568	0.65	1,923,509
2024/25	0.0	0.0%	12.0	25.0%	25.0%	5,699,839	1,424,960	4,274,879	0.72	3,056,538
Total						$45,773,194	$5,047,768	$40,725,426		$29,830,397

(3) and (5) are from Exhibit WC-2 (page 1).

(7) to 2023/24 is from Exhibit WC-11 (page 2), (9). The amount for 2024/25 is from Exhibit WC-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit WC-2 (page 1).

City of Miami Beach, Florida
Workers' Compensation

Projected Losses Paid October 1, 2025 to September 30, 2026

Claim Period (1)	Months of Development 9/30/25 (2)	Percent Losses Paid (3)	Months of Development 9/30/26 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/25 to 9/30/26 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/25 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/26 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/26 (9)X(10) (11)
to 1995/96	360.0	100.0%	372.0	100.0%	9.6%	$1,042,316	$100,581	$941,735	0.98	$923,842
1996/97	348.0	93.2%	360.0	100.0%	9.6%	388,167	37,457	350,710	0.98	344,047
1997/98	336.0	92.4%	348.0	93.2%	9.6%	461,157	44,501	416,656	0.98	408,740
1998/99	324.0	91.6%	336.0	92.4%	9.6%	826,969	79,483	747,486	0.95	707,869
1999/00	312.0	90.7%	324.0	91.6%	9.6%	831,371	79,551	751,820	0.92	689,419
2000/01	300.0	89.8%	312.0	90.7%	9.5%	1,563,370	148,856	1,414,514	0.89	1,260,332
2001/02	288.0	88.7%	300.0	89.8%	9.5%	2,813,043	266,373	2,546,670	0.87	2,213,056
2002/03	276.0	87.5%	288.0	88.7%	9.4%	1,162,852	109,440	1,053,412	0.85	894,347
2003/04	264.0	86.2%	276.0	87.5%	9.3%	233,520	21,828	211,692	0.83	176,128
2004/05	252.0	84.8%	264.0	86.2%	9.3%	965,663	89,578	876,085	0.82	715,761
2005/06	240.0	83.3%	252.0	84.8%	9.2%	281,468	25,889	255,579	0.80	205,230
2006/07	228.0	81.7%	240.0	83.3%	8.7%	145,878	12,754	133,124	0.79	105,434
2007/08	216.0	79.3%	228.0	81.7%	11.6%	333,322	38,646	294,676	0.78	229,847
2008/09	204.0	76.3%	216.0	79.3%	12.7%	1,253,745	158,702	1,095,043	0.78	850,848
2009/10	192.0	73.7%	204.0	76.3%	9.9%	222,371	21,983	200,388	0.78	155,701
2010/11	180.0	72.0%	192.0	73.7%	6.1%	3,923,845	238,233	3,685,612	0.77	2,837,921
2011/12	168.0	70.9%	180.0	72.0%	3.8%	738,103	27,901	710,202	0.76	536,203
2012/13	156.0	70.1%	168.0	70.9%	2.7%	444,342	11,889	432,453	0.74	318,285
2013/14	144.0	68.9%	156.0	70.1%	3.9%	670,317	25,864	644,453	0.72	460,784
2014/15	132.0	67.3%	144.0	68.9%	4.9%	1,609,030	78,729	1,530,301	0.70	1,068,150
2015/16	120.0	65.6%	132.0	67.3%	4.9%	1,281,797	63,345	1,218,452	0.69	837,077
2016/17	108.0	63.9%	120.0	65.6%	4.7%	1,661,410	78,238	1,583,172	0.68	1,070,224
2017/18	96.0	62.2%	108.0	63.9%	4.5%	940,101	42,280	897,821	0.67	597,949
2018/19	84.0	61.2%	96.0	62.2%	2.6%	1,175,603	30,299	1,145,304	0.66	750,174
2019/20	72.0	59.7%	84.0	61.2%	3.7%	1,340,701	49,902	1,290,799	0.64	824,821
2020/21	60.0	57.0%	72.0	59.7%	6.3%	2,309,034	144,986	2,164,048	0.63	1,359,022
2021/22	48.0	54.2%	60.0	57.0%	6.1%	2,319,457	141,801	2,177,656	0.63	1,367,568
2022/23	36.0	50.0%	48.0	54.2%	8.4%	2,534,027	212,858	2,321,169	0.63	1,455,373
2023/24	24.0	44.6%	36.0	50.0%	9.7%	2,977,568	290,232	2,687,336	0.63	1,703,771
2024/25	12.0	25.0%	24.0	44.6%	26.1%	4,274,879	1,117,168	3,157,711	0.65	2,039,881
2025/26	0.0	0.0%	12.0	25.0%	25.0%	6,044,680	1,511,170	4,533,510	0.72	3,241,460
Total						$46,770,106	$5,300,517	$41,469,589		$30,349,264

(3) and (5) are from Exhibit WC-2 (page 1).

(7) to 2024/25 is from Exhibit WC-11 (page 3), (9). The amount for 2025/26 is from Exhibit WC-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit WC-2 (page 1).

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Projected Losses Paid October 1, 2026 to September 30, 2027

Claim Period (1)	Months of Development 9/30/26 (2)	Percent Losses Paid (3)	Months of Development 9/30/27 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/26 to 9/30/27 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/26 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/27 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/27 (9)X(10) (11)
to 1995/96	372.0	100.0%	384.0	100.0%	9.6%	$941,735	$90,875	$850,860	0.98	$834,694
1996/97	360.0	100.0%	372.0	100.0%	9.6%	350,710	33,843	316,867	0.98	310,847
1997/98	348.0	93.2%	360.0	100.0%	9.6%	416,656	40,206	376,450	0.98	369,297
1998/99	336.0	92.4%	348.0	93.2%	9.6%	747,486	72,131	675,355	0.98	662,523
1999/00	324.0	91.6%	336.0	92.4%	9.6%	751,820	72,260	679,560	0.95	643,543
2000/01	312.0	90.7%	324.0	91.6%	9.6%	1,414,514	135,351	1,279,163	0.92	1,172,992
2001/02	300.0	89.8%	312.0	90.7%	9.5%	2,546,670	242,481	2,304,189	0.89	2,053,032
2002/03	288.0	88.7%	300.0	89.8%	9.5%	1,053,412	99,750	953,662	0.87	828,732
2003/04	276.0	87.5%	288.0	88.7%	9.4%	211,692	19,923	191,769	0.85	162,812
2004/05	264.0	86.2%	276.0	87.5%	9.3%	876,085	81,890	794,195	0.83	660,770
2005/06	252.0	84.8%	264.0	86.2%	9.3%	255,579	23,708	231,871	0.82	189,439
2006/07	240.0	83.3%	252.0	84.8%	9.2%	133,124	12,245	120,879	0.80	97,066
2007/08	228.0	81.7%	240.0	83.3%	8.7%	294,676	25,764	268,912	0.79	212,978
2008/09	216.0	79.3%	228.0	81.7%	11.6%	1,095,043	126,962	968,081	0.78	755,103
2009/10	204.0	76.3%	216.0	79.3%	12.7%	200,388	25,366	175,022	0.78	135,992
2010/11	192.0	73.7%	204.0	76.3%	9.9%	3,685,612	364,357	3,321,255	0.78	2,580,615
2011/12	180.0	72.0%	192.0	73.7%	6.1%	710,202	43,119	667,083	0.77	513,654
2012/13	168.0	70.9%	180.0	72.0%	3.8%	432,453	16,347	416,106	0.76	314,160
2013/14	156.0	70.1%	168.0	70.9%	2.7%	644,453	17,243	627,210	0.74	461,627
2014/15	144.0	68.9%	156.0	70.1%	3.9%	1,530,301	59,047	1,471,254	0.72	1,051,947
2015/16	132.0	67.3%	144.0	68.9%	4.9%	1,218,452	59,618	1,158,834	0.70	808,866
2016/17	120.0	65.6%	132.0	67.3%	4.9%	1,583,172	78,238	1,504,934	0.69	1,033,890
2017/18	108.0	63.9%	120.0	65.6%	4.7%	897,821	42,280	855,541	0.68	578,346
2018/19	96.0	62.2%	108.0	63.9%	4.5%	1,145,304	51,508	1,093,796	0.67	728,468
2019/20	84.0	61.2%	96.0	62.2%	2.6%	1,290,799	33,268	1,257,531	0.66	823,683
2020/21	72.0	59.7%	84.0	61.2%	3.7%	2,164,048	80,548	2,083,500	0.64	1,331,357
2021/22	60.0	57.0%	72.0	59.7%	6.3%	2,177,656	136,737	2,040,919	0.63	1,281,697
2022/23	48.0	54.2%	60.0	57.0%	6.1%	2,321,169	141,906	2,179,263	0.63	1,368,577
2023/24	36.0	50.0%	48.0	54.2%	8.4%	2,687,336	225,736	2,461,600	0.63	1,543,423
2024/25	24.0	44.6%	36.0	50.0%	9.7%	3,157,711	307,791	2,849,920	0.63	1,806,849
2025/26	12.0	25.0%	24.0	44.6%	26.1%	4,533,510	1,184,757	3,348,753	0.65	2,163,294
2026/27	0.0	0.0%	12.0	25.0%	25.0%	6,410,383	1,602,596	4,807,787	0.72	3,437,568
Total						$47,879,972	$5,547,851	$42,332,121		$30,917,841

(3) and (5) are from Exhibit WC-2 (page 1).

(7) to 2025/26 is from Exhibit WC-11 (page 4), (9). The amount for 2026/27 is from Exhibit WC-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit WC-2 (page 1).

City of Miami Beach, Florida
Workers' Compensation

Loss Rate and Severity Trend

Claim Period (1)	Legislative Trend (2022/23 = 1.000) (2)	Residual Trend (2022/23 = 1.000) (3)	Retention Index (2022/23 = 1.000) (4)	Loss Rate Trend (2022/23 = 1.000) (2)X(3)X(4) (5)	Exposure Trend (2022/23 = 1.000) (6)	Severity Trend (2022/23 = 1.000) (5)X(6) (7)
2017/18	1.000	1.051	0.950	0.998	1.104	1.102
2018/19	1.000	1.041	1.000	1.041	1.082	1.126
2019/20	1.000	1.030	1.000	1.030	1.061	1.093
2020/21	1.000	1.020	1.000	1.020	1.040	1.061
2021/22	1.000	1.010	1.000	1.010	1.020	1.030
2022/23	1.000	1.000	1.000	1.000	1.000	1.000
2023/24	1.000	0.990	1.000	0.990	0.980	0.971
2024/25	1.000	0.980	1.000	0.980	0.961	0.942
2025/26	1.000	0.971	1.000	0.971	0.942	0.915
2026/27	1.000	0.961	1.000	0.961	0.924	0.888

(2) is based on industry statistics and actuarial judgment.

(3) is based on 1% trend per actuarial judgment.

(4) is based on industry statistics and actuarial judgment.

(6) is based on 2% trend.

List of Large Claims

Claim Number (1)	Date of Loss (2)	Claim Period (3)	Specific Self-Insured Retention (4)	Limited Paid Losses 9/30/22 (5)	Limited Case Reserves 9/30/22 (6)	Limited Reported Incurred Losses 9/30/22 (7)
0606-WC-58-0500001	9/15/1958	to 1995/96	$250,000	$250,000 *	$0	$250,000 *
0606-WC-77-0500001	6/20/1977	to 1995/96	250,000	250,000 *	0	250,000 *
0606-WC-87-0500017	4/6/1987	to 1995/96	250,000	153,135	0	153,135
0606-WC-88-0500017	11/25/1987	to 1995/96	250,000	250,000 *	0	250,000 *
0606-WC-88-0500460	3/30/1988	to 1995/96	250,000	135,355	0	135,355
0606-WC-88-0500336	4/7/1988	to 1995/96	250,000	250,000 *	0	250,000 *
0606-WC-88-0500203	6/29/1988	to 1995/96	250,000	244,595 *	0	244,595 *
0606-WC-89-0500100	12/11/1988	to 1995/96	250,000	242,993 *	7,007 *	250,000 *
0606-WC-89-0500003	2/19/1989	to 1995/96	250,000	250,000 *	0	250,000 *
0606-WC-89-0500326	2/19/1989	to 1995/96	250,000	250,000 *	0	250,000 *
0606-WC-89-0500390	9/21/1989	to 1995/96	250,000	178,109	0	178,109
0606-WC-90-0500329	2/8/1990	to 1995/96	250,000	108,080	0	108,080
0606-WC-90-0500122	6/19/1990	to 1995/96	250,000	190,659	0	190,659
0606-WC-90-0500382	6/28/1990	to 1995/96	250,000	250,000 *	0	250,000 *
0606-WC-90-0500026	8/23/1990	to 1995/96	250,000	149,878	0	149,878
0606-WC-91-0500150	3/9/1991	to 1995/96	350,000	140,589	0	140,589
0606-WC-91-0500460	5/13/1991	to 1995/96	350,000	348,293 *	0	348,293 *
0606-WC-91-0500095	9/9/1991	to 1995/96	350,000	235,345	53,428	288,773
0606-WC-91-0500268	9/20/1991	to 1995/96	350,000	350,000 *	0	350,000 *
0606-WC-92-0500075	10/3/1991	to 1995/96	500,000	242,438	13,613	256,051
0606-WC-92-0500005	10/23/1991	to 1995/96	500,000	140,793	0	140,793
0606-WC-92-0500040	11/18/1991	to 1995/96	500,000	500,000 *	0	500,000 *
0606-WC-92-0500003	12/11/1991	to 1995/96	500,000	329,369	0	329,369
0606-WC-92-0500143	1/3/1992	to 1995/96	500,000	161,991	0	161,991
0606-WC-92-0500108	2/18/1992	to 1995/96	500,000	152,221	21,356	173,577
0606-WC-92-0500335	2/19/1992	to 1995/96	500,000	142,051	17,159	159,210
0606-WC-92-0500156	2/24/1992	to 1995/96	500,000	132,751	41,010	173,761
0606-WC-92-0500081	6/19/1992	to 1995/96	500,000	188,208	30,066	218,274
0606-WC-92-0500278	9/2/1992	to 1995/96	500,000	500,000 *	0	500,000 *
0606-WC-93-0500006	10/26/1992	to 1995/96	500,000	247,546	20,243	267,789
0606-WC-93-0500293	12/27/1992	to 1995/96	500,000	500,000 *	0	500,000 *
0606-WC-93-0500509	4/5/1993	to 1995/96	500,000	500,000 *	0	500,000 *
0606-WC-93-0500464	5/16/1993	to 1995/96	500,000	170,201	0	170,201
0606-WC-93-0500547	8/4/1993	to 1995/96	500,000	353,789	40,510	394,299
0606-WC-94-0500327	12/6/1993	to 1995/96	550,000	421,022	18,071	439,093
0606-WC-94-0500437	4/21/1994	to 1995/96	550,000	550,000 *	0	550,000 *
0606-WC-94-0500343	5/16/1994	to 1995/96	550,000	550,000 *	0	550,000 *
0606-WC-94-0500576	9/7/1994	to 1995/96	550,000	460,370	0	460,370
0606-WC-95-0500412	12/15/1994	to 1995/96	550,000	124,949	25,014	149,963
0606-WC-95-0500402	12/30/1994	to 1995/96	550,000	161,549	28,807	190,356
0606-WC-95-0500475	1/1/1995	to 1995/96	550,000	234,579	0	234,579
0606-WC-95-0500015	8/31/1995	to 1995/96	550,000	550,000 *	0	550,000 *
0606-WC-95-0500017	9/4/1995	to 1995/96	550,000	162,638	0	162,638
0606-WC-96-0500240	1/16/1996	to 1995/96	500,000	162,532	0	162,532
0606-WC-96-0500594	3/14/1996	to 1995/96	500,000	96,088	0	96,088
0606-WC-96-0500489	4/17/1996	to 1995/96	500,000	274,974	0	274,974
0606-WC-96-0500176	7/17/1996	to 1995/96	500,000	500,000 *	0	500,000 *
0606-WC-96-0500195	7/24/1996	to 1995/96	500,000	499,710 *	0	499,710 *
0606-WC-96-0500075	8/8/1996	to 1995/96	500,000	174,891	29,442	204,333
0606-WC-96-0500087	8/16/1996	to 1995/96	500,000	399,796	38,286	438,082
0606-WC-96-0500662	9/9/1996	to 1995/96	500,000	500,000 *	0	500,000 *
0606-WC-97-0500322	10/23/1996	1996/97	500,000	218,529	67,513	286,042
0606-WC-97-0500563	2/13/1997	1996/97	500,000	210,214	101,741	311,955
0606-WC-97-0500447	2/20/1997	1996/97	500,000	500,000 *	0	500,000 *
0606-WC-97-0500577	2/26/1997	1996/97	500,000	127,866	27,632	155,498
0606-WC-97-0500450	3/8/1997	1996/97	500,000	216,019	30,789	246,808
0606-WC-97-0500141	3/17/1997	1996/97	500,000	159,883	1,507	161,390
0606-WC-97-0500468	3/23/1997	1996/97	500,000	125,342	9,494	134,836
0606-WC-97-0500155	5/7/1997	1996/97	500,000	500,000 *	0	500,000 *
0606-WC-97-0500399	8/22/1997	1996/97	500,000	500,000 *	0	500,000 *
0606-WC-18-0000209	6/10/2018	2017/18	1,000,000	202,397	162,586	364,983
0606-WC-19-0000048	11/17/2018	2018/19	1,000,000	141,053	0	141,053
0606-WC-19-0000056	11/28/2018	2018/19	1,000,000	154,828	0	154,828
0606-WC-19-0000268	6/17/2019	2018/19	1,000,000	175,672	0	175,672
0606-WC-20-0000075	1/11/2020	2019/20	1,000,000	219,497	87,517	307,014
0606-WC-20-0000158	4/1/2020	2019/20	1,000,000	268,463	0	268,463
0606-WC-21-0000108	12/27/2020	2020/21	1,000,000	309,370	0	309,370
0606-WC-21-0000193	3/16/2021	2020/21	1,000,000	207,082	0	207,082
0606-WC-21-0000300	6/17/2021	2020/21	1,000,000	143,601	0	143,601
0606-WC-21-0000313	6/30/2021	2020/21	1,000,000	216,695	0	216,695
0606-WC-21-0000368	7/1/2021	2020/21	1,500,000	1,029,448 *	383,102 *	1,412,550 *

The claim(s) indicated by a "*" have been limited in development.

(1) through (7) were provided by the City.

City of Miami Beach, Florida
Law Enforcement Liability

Exhibit LE-1

Data Summary as of September 30, 2022

Claim Period (1)	Specific Self-Insured Retention (2)	Aggregate Retention (3)	Months of Development 9/30/22 (4)	Patrol Positions (5)	Reported Claims 9/30/22 (6)	Reported Open Claims 9/30/22 (7)	Limited Paid Losses 9/30/22 (8)	Limited Case Reserves 9/30/22 (9)	Limited Reported Incurred Losses 9/30/22 (10)
1995/96	Tort cap	None	324.0	Not Provided	54	0	$3,269,163	$0	$3,269,163
1996/97	Tort cap	None	312.0	Not Provided	29	0	253,791	0	253,791
1997/98	Tort cap	None	300.0	Not Provided	17	0	213,570	0	213,570
1998/99	Tort cap	None	288.0	Not Provided	27	0	174,329	0	174,329
1999/00	Tort cap	None	276.0	Not Provided	25	0	296,501	0	296,501
2000/01	Tort cap	None	264.0	Not Provided	29	0	666,271	0	666,271
2001/02	Tort cap	None	252.0	Not Provided	17	0	159,254	0	159,254
2002/03	Tort cap	None	240.0	Not Provided	11	0	84,657	0	84,657
2003/04	Tort cap	None	228.0	Not Provided	27	0	1,201,642	0	1,201,642
2004/05	Tort cap	None	216.0	Not Provided	13	0	564,514	0	564,514
2005/06	Tort cap	None	204.0	Not Provided	24	0	987,753	0	987,753
2006/07	Tort cap	None	192.0	Not Provided	14	0	307,542	0	307,542
2007/08	Tort cap	None	180.0	360	26	0	504,212	0	504,212
2008/09	Tort cap	None	168.0	353	22	0	1,169,286	0	1,169,286
2009/10	Tort cap	None	156.0	352	19	0	709,439	0	709,439
2010/11	Tort cap	None	144.0	361	20	0	923,607	0	923,607
2011/12	Tort cap	None	132.0	375	13	0	25,522	0	25,522
2012/13	Tort cap	None	120.0	367	16	0	1,314,217	0	1,314,217
2013/14	Tort cap	None	108.0	363	10	0	360,175	0	360,175
2014/15	Tort cap	None	96.0	383	3	0	190	0	190
2015/16	Tort cap	None	84.0	391	9	3	159,759	340,908	500,668
2016/17	Tort cap	None	72.0	411	4	1	298,728	100,395	399,123
2017/18	Tort cap	None	60.0	401	5	4	330,059	337,653	617,712
2018/19	Tort cap	None	48.0	420	4	4	215,299	859,673	1,074,972
2019/20	Tort cap	None	36.0	421	2	2	232,106	65,738	297,844
2020/21	Tort cap	None	24.0	416	7	7	36,830	260,438	297,268
2021/22	Tort cap	None	12.0	409	2	2	0	157,500	157,500
Total					449	23	$14,458,416	$2,122,305	$16,530,722

Data was provided by the City.

Summary of Percent Losses Paid, Losses Reported and Claims Reported

Months of Development (1)	Percent Losses Paid (2)	Percent Losses Reported (3)	Percent Claims Reported (4)
360.0	100.0%	100.0%	100.0%
348.0	100.0%	100.0%	100.0%
336.0	100.0%	100.0%	100.0%
324.0	100.0%	100.0%	100.0%
312.0	100.0%	100.0%	100.0%
300.0	100.0%	100.0%	100.0%
288.0	100.0%	100.0%	100.0%
276.0	100.0%	100.0%	100.0%
264.0	100.0%	100.0%	100.0%
252.0	100.0%	100.0%	100.0%
240.0	100.0%	100.0%	100.0%
228.0	100.0%	100.0%	100.0%
216.0	100.0%	100.0%	100.0%
204.0	100.0%	100.0%	100.0%
192.0	100.0%	100.0%	100.0%
180.0	100.0%	100.0%	100.0%
168.0	100.0%	100.0%	97.3%
156.0	100.0%	100.0%	97.3%
144.0	100.0%	100.0%	97.3%
132.0	100.0%	100.0%	97.3%
120.0	99.5%	100.0%	97.3%
108.0	98.5%	100.0%	97.3%
96.0	97.1%	100.0%	97.3%
84.0	94.7%	97.6%	97.3%
72.0	86.1%	88.7%	94.9%
60.0	66.2%	77.1%	90.3%
48.0	47.3%	61.7%	84.0%
36.0	27.0%	41.1%	76.4%
24.0	4.9%	18.3%	63.7%
12.0	2.0%	7.3%	36.4%

(2) is from Exhibit LE-2 (page 2).

(3) is from Exhibit LE-2 (page 3).

(4) is from Exhibit LE-2 (page 4).

City of Miami Beach, Florida
Law Enforcement Liability

Historical Unlimited and Gross of Recoveries Paid Losses ($000) and Unlimited and Gross of Recoveries Paid Loss Development

I. Historical Unlimited and Gross of Recoveries Paid Losses ($000)

Claim Period	Months of Development: 12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
2002/03	$9	$12	$12	$22	$22	$23	$23	$23	$23	$23	$23	$23	$23	$23	$23	$23	$23	$23	$85	$85
2003/04	17	30	93	160	588	1,235	1,338	1,338	1,338	1,338	1,338	1,338	1,338	1,338	1,338	1,338	1,338	1,202	1,202	
2004/05	2	4	5	71	237	274	314	367	378	378	468	468	468	468	468	468	565	565		
2005/06	3	10	33	73	136	378	575	837	965	988	988	988	988	988	988	988	988			
2006/07	107	4	8	17	235	290	304	289	289	289	289	289	289	289	308	308				
2007/08	6	10	19	25	325	498	490	490	490	490	490	490	490	504	504					
2008/09	3	39	286	586	809	899	923	1,007	1,009	1,033	1,050	1,050	1,169	1,169						
2009/10	0	102	234	370	602	722	781	796	797	797	797	709	709							
2010/11	4	15	246	378	501	759	759	759	759	759	924	924								
2011/12	1	1	4	18	33	41	41	41	41	26	26									
2012/13	1	2	103	327	607	1,071	1,073	1,073	1,314	1,314										
2013/14	5	25	196	242	256	359	359	360	360											
2014/15	117	245	245	245	245	245	0	0												
2015/16	12	62	107	107	143	145	160													
2016/17	0	1	69	100	132	299														
2017/18	8	8	51	171	330															
2018/19	0	0	1	215																
2019/20	0	72	232																	
2020/21	0	37																		
2020/21	0																			

II. Unlimited and Gross of Recoveries Paid Loss Development

Claim Period	Months of Development: 12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
2002/03	1.408	1.000	1.805	1.000	1.021	1.000	1.000	1.000	1.000	1.000	1.000	1.004	1.000	1.000	1.000	1.000	1.000	3.681	1.000	
2003/04	1.802	3.070	1.718	3.661	2.102	1.083	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.898	1.000		
2004/05	1.594	1.291	15.191	3.338	1.157	1.145	1.167	1.031	1.000	1.238	1.000	1.000	1.000	1.000	1.000	1.206	1.000			
2005/06	2.954	3.191	2.239	1.855	2.787	1.519	1.457	1.152	1.024	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
2006/07	0.034	2.198	2.047	14.155	1.233	1.049	0.953	0.998	1.000	1.000	1.000	1.000	1.000	1.064	1.000					
2007/08	1.822	1.872	1.289	13.114	1.530	0.984	1.001	1.000	1.000	1.000	1.000	1.000	1.029	1.000						
2008/09	13.401	7.341	2.047	1.380	1.111	1.026	1.091	1.002	1.024	1.016	1.000	1.114	1.000							
2009/10		2.301	1.582	1.626	1.200	1.082	1.019	1.001	1.001	1.000	0.890	1.000								
2010/11	3.385	16.150	1.538	1.327	1.515	1.000	1.000	1.000	1.000	1.217	1.000									
2011/12	0.887	4.648	4.021	1.833	1.227	1.000	1.000	1.000	0.630	1.000										
2012/13	3.406	58.159	3.175	1.857	1.763	1.002	1.000	1.225	1.000											
2013/14	5.000	7.840	1.236	1.058	1.400	1.001	1.002	1.000												
2014/15	2.094	1.000	1.000	1.000	1.000	0.001	1.000													
2015/16	5.139	1.735	1.002	1.333	1.016	1.101														
2016/17		63.026	1.442	1.329	2.258															
2017/18	1.000	6.424	3.376	1.931																
2018/19		2.615	194.814																	
2019/20		3.209																		
2020/21																				
2020/21																				
Average																				
All	3.137	10.393	14.090	3.237	1.488	1.000	1.053	1.034	0.971	1.047	0.988	1.015	1.004	1.011	1.000	1.052	0.966	2.340	1.000	
Wtd 3		3.520	4.023	1.602	1.324	0.693	1.001	1.164	0.993	1.104	0.968	1.053	1.007	1.010	1.000	1.035	0.929			
Last 3		4.083	66.544	1.531	1.425	0.701	1.001	1.075	0.877	1.072	0.963	1.038	1.010	1.021	1.000	1.069	0.966			
Last 5		4.083	1.940	1.240	1.393	1.001	1.000	1.001	1.000	1.005	1.000	1.000	1.000	1.000	1.000					
x-hi,low																				
Previous	2.500	5.500	1.750	1.400	1.300	1.030	1.025	1.015	1.010	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	2.500	5.500	1.750	1.400	1.300	1.100	1.025	1.015	1.010	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative	50.890	20.356	3.701	2.115	1.511	1.162	1.056	1.030	1.015	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Percent Losses Paid	2.0%	4.9%	27.0%	47.3%	66.2%	86.1%	94.7%	97.1%	98.5%	99.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Section I was provided by the City and previous actuarial studies. Shaded area is the old database.

City of Miami Beach, Florida
Law Enforcement Liability

Historical Unlimited and Gross of Recoveries Reported Incurred Losses ($000) and Unlimited and Gross of Recoveries Reported Incurred Loss Development

I. Historical Unlimited and Gross of Recoveries Reported Incurred Losses ($000)

Claim Period	Months of Development: 12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
2002/03	$31	$55	$55	$55	$32	$33	$33	$33	$33	$33	$33	$33	$33	$23	$23	$23	$23	$23	$85	$85
2003/04	251	337	353	406	761	1,461	1,386	1,386	1,362	1,362	1,362	1,362	1,362	1,362	1,362	1,362	1,362	1,202	1,202	
2004/05	10	80	106	167	316	354	393	446	447	447	503	468	468	468	468	468	565	565		
2005/06	31	135	170	243	258	563	707	887	1,076	1,096	1,003	1,003	1,003	1,003	1,003	988	988			
2006/07	142	46	60	86	386	423	437	422	420	289	289	289	289	289	308	308				
2007/08	76	181	218	238	496	670	662	732	490	490	490	490	490	504	504					
2008/09	147	196	618	849	938	1,048	1,112	1,072	1,057	1,088	1,091	1,086	1,169	1,169						
2009/10	44	208	352	456	717	884	827	858	859	829	829	709	709							
2010/11	295	421	544	747	811	850	850	850	843	794	924	924								
2011/12	17	44	79	93	33	41	41	41	41	26	26									
2012/13	106	207	308	443	941	1,205	1,073	1,073	1,314	1,314										
2013/14	18	127	265	412	405	438	370	360	360											
2014/15	444	408	246	245	245	245	0	0												
2015/16	15	112	140	153	172	159	501													
2016/17	35	58	195	222	233	399														
2017/18	55	55	144	263	618															
2018/19	0	10	11	1,075																
2019/20	10	92	298																	
2020/21	68	297																		
2020/21	158																			

II. Unlimited and Gross of Recoveries Reported Incurred Loss Development

Claim Period	Months of Development: 12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
2002/03	1.753	1.000	1.000	0.590	1.015	1.000	1.000	1.000	1.000	1.000	1.000	1.003	0.697	1.000	1.000	1.000	1.000	3.681	1.000	
2003/04	1.341	1.048	1.149	1.875	1.919	0.948	1.000	0.983	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.882	1.000		
2004/05	7.817	1.325	1.569	1.896	1.118	1.113	1.133	1.003	1.000	1.125	0.930	1.000	1.000	1.000	1.000	1.206	1.000			
2005/06	4.367	1.255	1.433	1.062	2.181	1.255	1.256	1.213	1.018	0.915	1.000	1.000	1.000	1.000	0.985	1.000				
2006/07	0.321	1.316	1.433	4.492	1.095	1.032	0.967	0.994	0.688	1.000	1.000	1.000	1.000	1.064	1.000					
2007/08	2.377	1.201	1.094	2.082	1.350	0.988	1.106	0.669	1.000	1.000	1.000	1.000	1.029	1.000						
2008/09	1.330	3.154	1.373	1.105	1.117	1.062	0.964	0.986	1.029	1.003	0.996	1.076	1.000							
2009/10	4.716	1.694	1.296	1.574	1.233	0.936	1.038	1.001	0.965	1.000	0.856	1.000								
2010/11	1.426	1.292	1.373	1.086	1.048	1.000	1.000	0.991	0.942	1.163	1.000									
2011/12	2.656	1.797	1.179	0.355	1.227	1.000	1.000	1.000	0.630	1.000										
2012/13	1.962	1.488	1.438	2.125	1.280	0.890	1.000	1.225	1.000											
2013/14	7.257	2.087	1.556	0.981	1.084	0.844	0.973	1.000												
2014/15	0.919	0.603	0.996	1.000	1.000	0.001	1.000													
2015/16	7.500	1.244	1.091	1.127	0.921	3.158														
2016/17	1.654	3.376	1.134	1.049	1.716															
2017/18	1.000	2.611	1.832	2.348																
2018/19		1.068	100.629																	
2019/20	9.233	3.226																		
2020/21	4.404																			
2020/21																				
Average																				
All	3.446	1.710	7.152	1.547	1.287	1.088	1.034	1.005	0.934	1.021	0.976	1.010	0.961	1.011	0.997	1.052	0.961	2.340	1.000	
Wtd 3	5.156	2.874	4.460	1.604	1.235	1.034	0.993	1.164	0.971	1.079	0.956	1.036	1.007	1.010	0.991	1.034	0.918			
Last 3		2.302	34.532	1.508	1.212	1.334	0.991	1.075	0.857	1.054	0.951	1.025	1.010	1.021	0.995	1.069	0.961			
Last 5		2.360	1.352	1.059	1.121	0.911	1.000	1.000	0.969	1.001	0.999	1.000	1.000	1.000	1.000					
x-hi,low																				
Previous	2.500	2.000	1.250	1.150	1.100	1.020	1.000	1.000	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	2.500	2.250	1.500	1.250	1.150	1.100	1.025	1.000	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	13.680	5.472	2.432	1.621	1.297	1.128	1.025	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Percent Losses Reported	7.3%	18.3%	41.1%	61.7%	77.1%	88.7%	97.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Section I was provided by the City and previous actuarial studies. Shaded area is the old database.

City of Miami Beach, Florida
Law Enforcement Liability

Historical Reported Claims and Reported Claim Development

I. Historical Reported Claims

Claim Period	Months of Development: 12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
2002/03																			11	11
2003/04																		27	27	
2004/05																	13	13		
2005/06																24	24			
2006/07															14	14				
2007/08														26	26					
2008/09													22	22						
2009/10												19	19							
2010/11											20	20								
2011/12										13	13									
2012/13									16	16										
2013/14								10	10											
2014/15							3	3												
2015/16						9	9													
2016/17					5	4														
2017/18				5	5															
2018/19			1	4																
2019/20		2	2																	
2020/21	5	7																		
2020/21	2																			

II. Reported Claim Development

Claim Period	Months of Development: 12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
2002/03																			1.000	
2003/04																		1.000		
2004/05																	1.000			
2005/06																1.000				
2006/07															1.000					
2007/08														1.000						
2008/09													1.000							
2009/10												1.000								
2010/11											1.000									
2011/12										1.000										
2012/13									1.000											
2013/14								1.000												
2014/15							1.000													
2015/16						1.000														
2016/17					0.800															
2017/18				1.000																
2018/19			4.000																	
2019/20		1.000																		
2020/21	1.400																			
2020/21																				
Average																				
All	1.400	1.000	4.000	1.000	0.800	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Wtd 3																				
Last 3																				
Last 5																				
x-hi,low																				
Previous	1.750	1.200	1.100	1.075	1.050	1.025	1.000	1.000	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	1.750	1.200	1.100	1.075	1.050	1.025	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.028	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative	2.749	1.571	1.309	1.190	1.107	1.054	1.028	1.028	1.028	1.028	1.028	1.028	1.028	1.028	1.000	1.000	1.000	1.000	1.000	1.000
Percent Claims Reported	36.4%	63.7%	76.4%	84.0%	90.3%	94.9%	97.3%	97.3%	97.3%	97.3%	97.3%	97.3%	97.3%	97.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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Developed Limited Paid Losses, Reported Incurred Losses and Case Reserves

Claim Period (1)	Months of Development 9/30/22 (2)	Percent Losses Paid (3)	Percent Losses Reported (4)	Percent Losses Reserved 9/30/22 ((4)-(3))/ (100.0%-(3)) (5)	Limited Paid Losses 9/30/22 (6)	Limited Case Reserves 9/30/22 (7)	Limited Reported Incurred Losses 9/30/22 (8)	Developed Limited Paid Losses (6)/(3) (9)	Developed Limited Reported Incurred Losses (8)/(4) (10)	Developed Limited Case Reserves (6)+(7)/(5) (11)
1995/96	324.0	100.0%	100.0%	100.0%	$3,269,163	$0	$3,269,163	$3,269,163	$3,269,163	$3,269,163
1996/97	312.0	100.0%	100.0%	100.0%	253,791	0	253,791	253,791	253,791	253,791
1997/98	300.0	100.0%	100.0%	100.0%	213,570	0	213,570	213,570	213,570	213,570
1998/99	288.0	100.0%	100.0%	100.0%	174,329	0	174,329	174,329	174,329	174,329
1999/00	276.0	100.0%	100.0%	100.0%	296,501	0	296,501	296,501	296,501	296,501
2000/01	264.0	100.0%	100.0%	100.0%	666,271	0	666,271	666,271	666,271	666,271
2001/02	252.0	100.0%	100.0%	100.0%	159,254	0	159,254	159,254	159,254	159,254
2002/03	240.0	100.0%	100.0%	100.0%	84,657	0	84,657	84,657	84,657	84,657
2003/04	228.0	100.0%	100.0%	100.0%	1,201,642	0	1,201,642	1,201,642	1,201,642	1,201,642
2004/05	216.0	100.0%	100.0%	100.0%	564,514	0	564,514	564,514	564,514	564,514
2005/06	204.0	100.0%	100.0%	100.0%	987,753	0	987,753	987,753	987,753	987,753
2006/07	192.0	100.0%	100.0%	100.0%	307,542	0	307,542	307,542	307,542	307,542
2007/08	180.0	100.0%	100.0%	100.0%	504,212	0	504,212	504,212	504,212	504,212
2008/09	168.0	100.0%	100.0%	100.0%	1,169,286	0	1,169,286	1,169,286	1,169,286	1,169,286
2009/10	156.0	100.0%	100.0%	100.0%	709,439	0	709,439	709,439	709,439	709,439
2010/11	144.0	100.0%	100.0%	100.0%	923,607	0	923,607	923,607	923,607	923,607
2011/12	132.0	100.0%	100.0%	100.0%	25,522	0	25,522	25,522	25,522	25,522
2012/13	120.0	99.5%	100.0%	100.0%	1,314,217	0	1,314,217	1,320,821	1,314,217	1,314,217
2013/14	108.0	98.5%	100.0%	100.0%	360,175	0	360,175	365,660	360,175	360,175
2014/15	96.0	97.1%	100.0%	100.0%	190	0	190	196	190	190
2015/16	84.0	94.7%	97.6%	54.7%	159,759	340,909	500,668	168,700	512,980	606,111 *
2016/17	72.0	86.1%	88.7%	18.7%	298,728	100,395	399,123	346,955	440,886 *	424,222 *
2017/18	60.0	66.2%	77.1%	32.2%	330,059	287,653	617,712	498,579	697,418 *	713,031 *
2018/19	48.0	47.3%	61.7%	27.3%	215,299	859,673	1,074,972	455,178	1,644,727 *	1,861,566 *
2019/20	36.0	27.0%	41.1%	19.3%	232,106	65,738	297,844	548,444 *	448,987 *	336,813 *
2020/21	24.0	4.9%	18.3%	14.1%	36,830	260,438	297,268	533,528 *	1,167,093 *	1,356,373 *
2021/22	12.0	2.0%	7.3%	5.4%	0	157,500	157,500	0	548,973 *	644,811 *

(3) and (4) are based on Exhibit LE-2 (page 1).

(6), (7) and (8) are from Exhibit LE-1.

City of Miami Beach, Florida
Law Enforcement Liability

Preliminary Projected Ultimate Limited Losses to 2021/22

Claim Period (1)	Developed Limited Paid Losses (2)	Developed Limited Reported Incurred Losses (3)	Developed Limited Case Reserves (4)	Preliminary Projected Ultimate Limited Losses (5)
1995/96	$3,269,163	$3,269,163	$3,269,163	$3,269,163
1996/97	253,791	253,791	253,791	253,791
1997/98	213,570	213,570	213,570	213,570
1998/99	174,329	174,329	174,329	174,329
1999/00	296,501	296,501	296,501	296,501
2000/01	666,271	666,271	666,271	666,271
2001/02	159,254	159,254	159,254	159,254
2002/03	84,657	84,657	84,657	84,657
2003/04	1,201,642	1,201,642	1,201,642	1,201,642
2004/05	564,514	564,514	564,514	564,514
2005/06	987,753	987,753	987,753	987,753
2006/07	307,542	307,542	307,542	307,542
2007/08	504,212	504,212	504,212	504,212
2008/09	1,169,286	1,169,286	1,169,286	1,169,286
2009/10	709,439	709,439	709,439	709,439
2010/11	923,607	923,607	923,607	923,607
2011/12	25,522	25,522	25,522	25,522
2012/13	1,320,821	1,314,217	1,314,217	1,314,217
2013/14	365,660	360,175	360,175	360,175
2014/15	196	190	190	190
2015/16	168,700	512,980	606,111	671,122
2016/17	346,955	440,886	424,222	449,321
2017/18	498,579	697,418	713,031	786,539
2018/19	455,178	1,644,727	1,861,566	1,644,727
2019/20	548,444	448,987	336,813	448,987
2020/21	533,528	1,167,093	1,356,373	1,167,093
2021/22	0	548,973	644,811	548,973

(2), (3) and (4) are from Exhibit LE-3.

(5) is based on (2) to (4), weighted as follows:

Subject to a minimum of Exhibit LE-1, (10) and minimum 50% of case reserves or $10,000 per open claim as IBNR for claim periods with open claims.

Claim Period	Developed Limited Paid Losses	Developed Limited Reported Incurred Losses	Developed Limited Case Reserves
to 2007/08	0.0%	100.0%	0.0%
2008/09	0.0%	100.0%	0.0%
2009/10	0.0%	100.0%	0.0%
2010/11	0.0%	100.0%	0.0%
2011/12	0.0%	100.0%	0.0%
2012/13	0.0%	100.0%	0.0%
2013/14	0.0%	100.0%	0.0%
2014/15	0.0%	100.0%	0.0%
2015/16	0.0%	100.0%	0.0%
2016/17	0.0%	100.0%	0.0%
2017/18	0.0%	100.0%	0.0%
2018/19	0.0%	100.0%	0.0%
2019/20	0.0%	100.0%	0.0%
2020/21	0.0%	100.0%	0.0%
2021/22	0.0%	100.0%	0.0%

Bornhuetter - Ferguson Analysis

I. A-priori Loss Rate

Claim Period (1)	Preliminary Projected Ultimate Limited Losses (2)	Patrol Positions (3)	Limited Loss Rate per Patrol Position (2)/(3) (4)	Loss Rate Trend (2022/23 = 1.000) (5)	Trended Limited Loss Rate per Patrol Position (4)X(5) (6)	Projected A-priori Loss Rate per Patrol Position (7)/(5) (8)
2017/18	$786,539	401	$1,961.44	1.276	$2,503.35	$2,037.21
2018/19	1,644,727	420	3,916.02	1.216	4,759.94	2,139.08
2019/20	448,987	421	1,066.48	1.158	1,234.58	2,246.03
2020/21	1,167,093	416	2,805.51	1.103	3,093.08	2,358.33
2021/22	548,973	409	1,342.23	1.050	1,409.34	2,476.25

(7) Projected 2022/23 a-priori loss rate per Patrol Position $2,600.06

II. Bornhuetter - Ferguson Analysis Based on Limited Paid Losses

Claim Period (1)	Limited Paid Losses 9/30/22 (2)	Percent Losses Paid (3)	Projected A-priori Loss Rate per Patrol Position (4)	Patrol Positions (5)	B-F Unpaid Losses (100.0%-(3)) X(4)X(5) (6)	B-F Ultimate Limited Paid Losses (2)+(6) (7)
2017/18	$330,059	66.2%	$2,037.21	401	$276,120	$606,179
2018/19	215,299	47.3%	2,139.08	420	473,463	688,762
2019/20	232,106	27.0%	2,246.03	421	690,272	922,378
2020/21	36,830	4.9%	2,358.33	416	932,993	969,823
2021/22	0	2.0%	2,476.25	409	992,529	992,529

III. Bornhuetter - Ferguson Analysis Based on Limited Reported Incurred Losses

Claim Period (1)	Limited Reported Incurred Losses 9/30/22 (2)	Percent Losses Reported (3)	Projected A-priori Loss Rate per Patrol Position (4)	Patrol Positions (5)	B-F Unreported Losses (100.0%-(3)) X(4)X(5) (6)	B-F Ultimate Limited Reported Losses (2)+(6) (7)
2017/18	$617,712	77.1%	$2,037.21	401	$187,075	$804,787
2018/19	1,074,972	61.7%	2,139.08	420	344,092	1,419,064
2019/20	297,844	41.1%	2,246.03	421	556,946	854,790
2020/21	297,268	18.3%	2,358.33	416	801,531	1,098,799
2021/22	157,500	7.3%	2,476.25	409	938,852	1,096,352

Section I, (2) is from Exhibit LE-4.

Section I, (3), Section II, (5) and Section III, (5) were provided by the City.

Section I, (5) is from Exhibit LE-12.

Section I, (7) is based on Section I, (6) and the following weights:

Claim Period	Weight
2017/18	20.0%
2018/19	20.0%
2019/20	20.0%
2020/21	20.0%
2021/22	20.0%

Sections II and III, (2) are from Exhibit LE-1.

Sections II and III, (3) are based on Exhibit LE-2 (page 1).

Sections II and III, (4) are from Section I, (8).

Frequency Times Severity Analysis

I. Projected Ultimate Claims

Claim Period (1)	Months of Development 9/30/22 (2)	Reported Claims 9/30/22 (3)	Percent Claims Reported (4)	Projected Ultimate Claims (3)/(4) (5)	Reported Open Claims 9/30/22 (6)	Number of IBNR Claims (5)-(3) (7)	Open Claims 9/30/22 (6)+(7) (8)
2017/18	60.0	5	90.3%	6	4	1	5
2018/19	48.0	4	84.0%	5	4	1	5
2019/20	36.0	2	76.4%	3	2	1	3
2020/21	24.0	7	63.7%	11	7	4	11
2021/22	12.0	2	36.4%	5	2	3	5

II. Frequency Times Severity

Claim Period (1)	Preliminary Projected Ultimate Limited Losses (2)	Projected Ultimate Claims (3)	Average Severity (2)/(3) (4)	Severity Trend (2022/23 = 1.000) (5)	Trended Average Claim Severity (4)X(5) (6)	De-Trended Projected 2022/23 Average Claim Severity (7)/(5) (8)	Frequency Times Severity (3)X(8) (9)
2017/18	$786,539	6	$131,090	1.276	$167,307	$152,420	$914,520
2018/19	1,644,727	5	328,945	1.216	399,835	160,041	800,205
2019/20	448,987	3	149,662	1.158	173,253	168,043	504,129
2020/21	1,167,093	11	106,099	1.103	116,975	176,445	1,940,898
2021/22	548,973	5	109,795	1.050	115,284	185,268	926,338
	(7) Projected 2022/23 average claim severity				$194,531		

Section I, (3) and (6) are from Exhibit LE-1.

Section I, (4) is from Exhibit LE-2.

Section II, (2) is from Exhibit LE-4.

Section II, (3) is from Section I, (5).

Section II, (5) is from Exhibit LE-12.

Section II, (7) is based on (6) and the following weights:

Claim Period	Weight
2017/18	20.0%
2018/19	20.0%
2019/20	20.0%
2020/21	20.0%
2021/22	20.0%

Projected Ultimate Limited Losses to 2021/22

Claim Period (1)	Developed Limited Paid Losses (2)	Developed Limited Reported Incurred Losses (3)	Developed Limited Case Reserves (4)	B-F Paid Method Ultimate Losses (5)	B-F Reported Method Ultimate Losses (6)	Frequency Times Severity (7)	Previous Projected Ultimate Limited Losses (9/30/21) (8)	Projected Ultimate Limited Losses (9)	Change in Projected Ultimate Limited Losses (9)-(8) (10)
1995/96	$3,269,163	$3,269,163	$3,269,163				$3,269,163	$3,269,163	$0
1996/97	253,791	253,791	253,791				253,791	253,791	0
1997/98	213,570	213,570	213,570				213,570	213,570	0
1998/99	174,329	174,329	174,329				174,329	174,329	0
1999/00	296,501	296,501	296,501				296,501	296,501	0
2000/01	666,271	666,271	666,271				666,271	666,271	0
2001/02	159,254	159,254	159,254				159,254	159,254	0
2002/03	84,657	84,657	84,657				84,657	84,657	0
2003/04	1,201,642	1,201,642	1,201,642				1,201,642	1,201,642	0
2004/05	564,514	564,514	564,514				564,514	564,514	0
2005/06	987,753	987,753	987,753				987,753	987,753	0
2006/07	307,542	307,542	307,542				307,542	307,542	0
2007/08	504,212	504,212	504,212				504,212	504,212	0
2008/09	1,169,286	1,169,286	1,169,286				1,169,286	1,169,286	0
2009/10	709,439	709,439	709,439				709,439	709,439	0
2010/11	923,607	923,607	923,607				923,607	923,607	0
2011/12	25,522	25,522	25,522				25,522	25,522	0
2012/13	1,320,821	1,314,217	1,314,217				1,314,188	1,314,217	29
2013/14	365,660	360,175	360,175				360,024	360,175	151
2014/15	196	190	190				190	190	0
2015/16	168,700	512,980	606,111				178,515	671,122	492,607
2016/17	346,955	440,886	424,222				312,662	449,321	136,659
2017/18	498,579	697,418	713,031	606,179	804,787	914,520	415,319	786,539	371,219
2018/19	455,178	1,644,727	1,861,566	688,762	1,419,064	800,205	105,224	1,599,595	1,494,371
2019/20	548,444	448,987	336,813	922,378	854,790	504,129	433,281	530,148	96,867
2020/21	533,528	1,167,093	1,356,373	969,823	1,098,799	1,940,898	667,535	1,132,946	465,411
2021/22	0	548,973	644,811	992,529	1,096,352	926,338	513,632	986,876	473,244

(2), (3) and (4) are from Exhibit LE-3.

(5) and (6) are from Exhibit LE-5.

(7) is from Exhibit LE-6.

(8) is from the previous study.

(9) is based on (2) to (8), weighted as follows:

Subject to a minimum of Exhibit LE-1, (10) and minimum 50% of case reserves or $10,000 per open claim as IBNR for claim periods with open claims.

Claim Period	Developed Limited Paid Losses	Developed Limited Reported Incurred Losses	Developed Limited Case Reserves	B-F Paid Method Ultimate Losses	B-F Reported Method Ultimate Losses	Frequency Times Severity	Previous Projected Ultimate Limited Losses
to 2007/08	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2008/09	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2009/10	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2010/11	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2011/12	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2012/13	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2013/14	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2014/15	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2015/16	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2016/17	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2017/18	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2018/19	0.0%	80.0%	0.0%	0.0%	20.0%	0.0%	0.0%
2019/20	0.0%	80.0%	0.0%	0.0%	20.0%	0.0%	0.0%
2020/21	0.0%	50.0%	0.0%	0.0%	50.0%	0.0%	0.0%
2021/22	0.0%	20.0%	0.0%	0.0%	80.0%	0.0%	0.0%
Total Last 5	$2,035,728	$4,507,199	$4,912,595	$4,179,672	$5,273,791	$5,086,090	$2,134,991

Average projected ultimate limited losses total last 5, excluding previous:	$4,332,512
Projected ultimate limited losses total last 5	$5,036,103

Projected Ultimate Limited Losses for 2022/23 and Subsequent

Claim Period (1)	Projected Ultimate Limited Losses (2)	Patrol Positions (3)	Limited Loss Rate per Patrol Position (2)/(3) (4)	Loss Rate Trend (2022/23 = 1.000) (5)	Trended Limited Loss Rate per Patrol Position (4)X(5) (6)
2017/18	$786,539	401	$1,961.44	1.276	$2,503.35
2018/19	1,599,595	420	3,808.56	1.216	4,629.33
2019/20	530,148	421	1,259.26	1.158	1,457.75
2020/21	1,132,946	416	2,723.43	1.103	3,002.58
2021/22	986,876	409	2,412.90	1.050	2,533.54
Total	$5,036,103	2,067	$2,436.43		$2,825.31

Claim Period (1)	Projected Limited Loss Rate per Patrol Position (7)	Projected Patrol Positions (8)	Projected Ultimate Limited Losses (7)X(8) (9)	Present Value Factor (10)	Present Value of Projected Limited Loss Rate per Patrol Position (7)X(10) (11)	Present Value of Projected Ultimate Limited Losses (8)X(11) (12)
2022/23	$2,825.31	413	$1,167,108	0.85	$2,395.86	$989,707
2023/24	2,966.58	417	1,237,718	0.85	2,515.66	1,049,584
2024/25	3,114.90	421	1,312,599	0.85	2,641.44	1,113,084
2025/26	3,270.65	426	1,392,012	0.85	2,773.51	1,180,426
2026/27	3,434.18	430	1,476,228	0.85	2,912.19	1,251,842

(2) is from Exhibit LE-7.

(3) was provided by the City.

(5) is from Exhibit LE-12.

(7) for 2022/23 is based on (6) and the following weights:

Claim Period	Weight
2017/18	20.0%
2018/19	20.0%
2019/20	20.0%
2020/21	20.0%
2021/22	20.0%

(7) for 2023/24 and subsequent are based on 2022/23 plus the trend in Exhibit LE-12.

(8) is based on (3) for 2021/22 and a 1% trend.

(10) is based on a 4% interest rate and the payout pattern in Exhibit LE-2 (page 1).

City of Miami Beach, Florida
Law Enforcement Liability

Estimated Outstanding Losses as of September 30, 2022

Claim Period (1)	Limited Paid Losses 9/30/22 (2)	Limited Case Reserves 9/30/22 (3)	Limited Reported Incurred Losses 9/30/22 (4)	Projected Ultimate Limited Losses (5)	Estimated Outstanding Losses 9/30/22 (5)-(2) (6)	Estimated IBNR 9/30/22 (6)-(3) (7)
1995/96	$3,269,163	$0	$3,269,163	$3,269,163	$0	$0
1996/97	253,791	0	253,791	253,791	0	0
1997/98	213,570	0	213,570	213,570	0	0
1998/99	174,329	0	174,329	174,329	0	0
1999/00	296,501	0	296,501	296,501	0	0
2000/01	666,271	0	666,271	666,271	0	0
2001/02	159,254	0	159,254	159,254	0	0
2002/03	84,657	0	84,657	84,657	0	0
2003/04	1,201,642	0	1,201,642	1,201,642	0	0
2004/05	564,514	0	564,514	564,514	0	0
2005/06	987,753	0	987,753	987,753	0	0
2006/07	307,542	0	307,542	307,542	0	0
2007/08	504,212	0	504,212	504,212	0	0
2008/09	1,169,286	0	1,169,286	1,169,286	0	0
2009/10	709,439	0	709,439	709,439	0	0
2010/11	923,607	0	923,607	923,607	0	0
2011/12	25,522	0	25,522	25,522	0	0
2012/13	1,314,217	0	1,314,217	1,314,217	0	0
2013/14	360,175	0	360,175	360,175	0	0
2014/15	190	0	190	190	0	0
2015/16	159,759	340,908	500,668	671,122	511,363	170,455
2016/17	298,728	100,395	399,123	449,321	150,593	50,198
2017/18	330,059	337,653	617,712	786,539	456,480	118,827
2018/19	215,299	859,673	1,074,972	1,599,595	1,384,296	524,623
2019/20	232,106	65,738	297,844	530,148	298,042	232,304
2020/21	36,830	260,438	297,268	1,132,946	1,096,116	835,678
2021/22	0	157,500	157,500	986,876	986,876	829,376
Total	$14,458,416	$2,122,305	$16,530,722	$19,342,180	$4,883,766	$2,761,461

(2), (3) and (4) are from Exhibit LE-1, and net of the specific self insured retention and aggregate retention.

(5) is from Exhibit LE-7.

City of Miami Beach, Florida
Law Enforcement Liability

Present Value of Estimated Outstanding Losses as of December 31, 2021

Claim Period (1)	Estimated Outstanding Losses 9/30/22 (2)	Present Value Factor (3)	Present Value of Estimated Outstanding Losses 9/30/22 (2)X(3) (4)	Anticipated Future Investment Income (2)-(4) (5)
1995/96	$0	1.00	$0	$0
1996/97	0	1.00	0	0
1997/98	0	1.00	0	0
1998/99	0	1.00	0	0
1999/00	0	1.00	0	0
2000/01	0	1.00	0	0
2001/02	0	1.00	0	0
2002/03	0	1.00	0	0
2003/04	0	1.00	0	0
2004/05	0	1.00	0	0
2005/06	0	1.00	0	0
2006/07	0	1.00	0	0
2007/08	0	1.00	0	0
2008/09	0	1.00	0	0
2009/10	0	1.00	0	0
2010/11	0	1.00	0	0
2011/12	0	1.00	0	0
2012/13	0	0.98	0	0
2013/14	0	0.97	0	0
2014/15	0	0.96	0	0
2015/16	511,363	0.95	483,749	27,614
2016/17	150,593	0.95	143,666	6,927
2017/18	456,480	0.95	435,482	20,998
2018/19	1,384,296	0.94	1,301,238	83,058
2019/20	298,042	0.93	275,689	22,353
2020/21	1,096,116	0.91	998,562	97,554
2021/22	986,876	0.88	867,464	119,412
Total	$4,883,766		$4,505,850	$377,916

(2) is from Exhibit LE-9.

(3) is based on a 4% interest rate and the payout pattern in Exhibit LE-2 (page 1).

City of Miami Beach, Florida
Law Enforcement Liability

Projected Losses Paid October 1, 2022 to September 30, 2023

Claim Period (1)	Months of Development 9/30/22 (2)	Percent Losses Paid (3)	Months of Development 9/30/23 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/22 to 9/30/23 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/22 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/23 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/23 (9)X(10) (11)
1995/96	324.0	100.0%	336.0	100.0%	35.0% *	$0	$0	$0	1.00	$0
1996/97	312.0	100.0%	324.0	100.0%	35.0% *	0	0	0	1.00	0
1997/98	300.0	100.0%	312.0	100.0%	35.0% *	0	0	0	1.00	0
1998/99	288.0	100.0%	300.0	100.0%	35.0% *	0	0	0	1.00	0
1999/00	276.0	100.0%	288.0	100.0%	35.0% *	0	0	0	1.00	0
2000/01	264.0	100.0%	276.0	100.0%	35.0% *	0	0	0	1.00	0
2001/02	252.0	100.0%	264.0	100.0%	35.0% *	0	0	0	1.00	0
2002/03	240.0	100.0%	252.0	100.0%	35.0% *	0	0	0	1.00	0
2003/04	228.0	100.0%	240.0	100.0%	35.0% *	0	0	0	1.00	0
2004/05	216.0	100.0%	228.0	100.0%	35.0% *	0	0	0	1.00	0
2005/06	204.0	100.0%	216.0	100.0%	35.0% *	0	0	0	1.00	0
2006/07	192.0	100.0%	204.0	100.0%	35.0% *	0	0	0	1.00	0
2007/08	180.0	100.0%	192.0	100.0%	35.0% *	0	0	0	1.00	0
2008/09	168.0	100.0%	180.0	100.0%	35.0% *	0	0	0	1.00	0
2009/10	156.0	100.0%	168.0	100.0%	35.0% *	0	0	0	1.00	0
2010/11	144.0	100.0%	156.0	100.0%	35.0% *	0	0	0	1.00	0
2011/12	132.0	100.0%	144.0	100.0%	35.0% *	0	0	0	1.00	0
2012/13	120.0	99.5%	132.0	100.0%	35.0% *	0	0	0	1.00	0
2013/14	108.0	98.5%	120.0	99.5%	35.0% *	0	0	0	0.98	0
2014/15	96.0	97.1%	108.0	98.5%	35.0% *	0	0	0	0.97	0
2015/16	84.0	94.7%	96.0	97.1%	35.0% *	511,363	178,977	332,386	0.96	317,429
2016/17	72.0	86.1%	84.0	94.7%	35.0% *	150,593	52,708	97,885	0.95	92,599
2017/18	60.0	66.2%	72.0	86.1%	35.0% *	456,480	159,768	296,712	0.95	283,063
2018/19	48.0	47.3%	60.0	66.2%	35.0% *	1,384,296	484,504	899,792	0.95	858,402
2019/20	36.0	27.0%	48.0	47.3%	27.8% *	298,042	82,880	215,162	0.94	202,252
2020/21	24.0	4.9%	36.0	27.0%	23.2% *	1,096,116	254,723	841,393	0.93	778,289
2021/22	12.0	2.0%	24.0	4.9%	3.0% *	986,876	29,203	957,673	0.91	872,440
2022/23	0.0	0.0%	12.0	2.0%	2.0% *	1,167,108	23,342	1,143,766	0.88	1,005,370
Total						$6,050,874	$1,266,105	$4,784,769		$4,409,844

* - Limited to a maximum of 35% per actuarial judgment.

(3) and (5) are from Exhibit LE-2 (page 1).

(7) to 2021/22 is from Exhibit LE-9. The amount for 2022/23 is from Exhibit LE-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit LE-2 (page 1).

City of Miami Beach, Florida
Law Enforcement Liability

Projected Losses Paid October 1, 2023 to September 30, 2024

Claim Period (1)	Months of Development 9/30/23 (2)	Percent Losses Paid (3)	Months of Development 9/30/24 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/23 to 9/30/24 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/23 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/24 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/24 (9)X(10) (11)
1995/96	336.0	100.0%	348.0	100.0%	35.0% *	$0	$0	$0	1.00	$0
1996/97	324.0	100.0%	336.0	100.0%	35.0% *	0	0	0	1.00	0
1997/98	312.0	100.0%	324.0	100.0%	35.0% *	0	0	0	1.00	0
1998/99	300.0	100.0%	312.0	100.0%	35.0% *	0	0	0	1.00	0
1999/00	288.0	100.0%	300.0	100.0%	35.0% *	0	0	0	1.00	0
2000/01	276.0	100.0%	288.0	100.0%	35.0% *	0	0	0	1.00	0
2001/02	264.0	100.0%	276.0	100.0%	35.0% *	0	0	0	1.00	0
2002/03	252.0	100.0%	264.0	100.0%	35.0% *	0	0	0	1.00	0
2003/04	240.0	100.0%	252.0	100.0%	35.0% *	0	0	0	1.00	0
2004/05	228.0	100.0%	240.0	100.0%	35.0% *	0	0	0	1.00	0
2005/06	216.0	100.0%	228.0	100.0%	35.0% *	0	0	0	1.00	0
2006/07	204.0	100.0%	216.0	100.0%	35.0% *	0	0	0	1.00	0
2007/08	192.0	100.0%	204.0	100.0%	35.0% *	0	0	0	1.00	0
2008/09	180.0	100.0%	192.0	100.0%	35.0% *	0	0	0	1.00	0
2009/10	168.0	100.0%	180.0	100.0%	35.0% *	0	0	0	1.00	0
2010/11	156.0	100.0%	168.0	100.0%	35.0% *	0	0	0	1.00	0
2011/12	144.0	100.0%	156.0	100.0%	35.0% *	0	0	0	1.00	0
2012/13	132.0	100.0%	144.0	100.0%	35.0% *	0	0	0	1.00	0
2013/14	120.0	99.5%	132.0	100.0%	35.0% *	0	0	0	1.00	0
2014/15	108.0	98.5%	120.0	99.5%	35.0% *	0	0	0	0.98	0
2015/16	96.0	97.1%	108.0	98.5%	35.0% *	332,386	116,335	216,051	0.97	209,137
2016/17	84.0	94.7%	96.0	97.1%	35.0% *	97,885	34,260	63,625	0.96	60,762
2017/18	72.0	86.1%	84.0	94.7%	35.0% *	296,712	103,849	192,863	0.95	182,448
2018/19	60.0	66.2%	72.0	86.1%	35.0% *	899,792	314,927	584,865	0.95	557,961
2019/20	48.0	47.3%	60.0	66.2%	35.0% *	215,162	75,307	139,855	0.95	133,422
2020/21	36.0	27.0%	48.0	47.3%	27.8% *	841,393	233,976	607,417	0.94	570,972
2021/22	24.0	4.9%	36.0	27.0%	23.2% *	957,673	222,551	735,122	0.93	679,988
2022/23	12.0	2.0%	24.0	4.9%	3.0% *	1,143,766	33,846	1,109,920	0.91	1,011,137
2023/24	0.0	0.0%	12.0	2.0%	2.0% *	1,237,718	24,754	1,212,964	0.88	1,066,195
Total						$6,022,487	$1,159,805	$4,862,682		$4,472,022

* - Limited to a maximum of 35% per actuarial judgment.

(3) and (5) are from Exhibit LE-2 (page 1).

(7) to 2022/23 is from Exhibit LE-11 (page 1), (9). The amount for 2023/24 is from Exhibit LE-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit LE-2 (page 1).

City of Miami Beach, Florida
Law Enforcement Liability

Projected Losses Paid October 1, 2024 to September 30, 2025

Claim Period (1)	Months of Development 9/30/24 (2)	Percent Losses Paid (3)	Months of Development 9/30/25 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/24 to 9/30/25 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/24 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/25 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/25 (9)X(10) (11)
1995/96	348.0	100.0%	360.0	100.0%	35.0% *	$0	$0	$0	1.00	$0
1996/97	336.0	100.0%	348.0	100.0%	35.0% *	0	0	0	1.00	0
1997/98	324.0	100.0%	336.0	100.0%	35.0% *	0	0	0	1.00	0
1998/99	312.0	100.0%	324.0	100.0%	35.0% *	0	0	0	1.00	0
1999/00	300.0	100.0%	312.0	100.0%	35.0% *	0	0	0	1.00	0
2000/01	288.0	100.0%	300.0	100.0%	35.0% *	0	0	0	1.00	0
2001/02	276.0	100.0%	288.0	100.0%	35.0% *	0	0	0	1.00	0
2002/03	264.0	100.0%	276.0	100.0%	35.0% *	0	0	0	1.00	0
2003/04	252.0	100.0%	264.0	100.0%	35.0% *	0	0	0	1.00	0
2004/05	240.0	100.0%	252.0	100.0%	35.0% *	0	0	0	1.00	0
2005/06	228.0	100.0%	240.0	100.0%	35.0% *	0	0	0	1.00	0
2006/07	216.0	100.0%	228.0	100.0%	35.0% *	0	0	0	1.00	0
2007/08	204.0	100.0%	216.0	100.0%	35.0% *	0	0	0	1.00	0
2008/09	192.0	100.0%	204.0	100.0%	35.0% *	0	0	0	1.00	0
2009/10	180.0	100.0%	192.0	100.0%	35.0% *	0	0	0	1.00	0
2010/11	168.0	100.0%	180.0	100.0%	35.0% *	0	0	0	1.00	0
2011/12	156.0	100.0%	168.0	100.0%	35.0% *	0	0	0	1.00	0
2012/13	144.0	100.0%	156.0	100.0%	35.0% *	0	0	0	1.00	0
2013/14	132.0	100.0%	144.0	100.0%	35.0% *	0	0	0	1.00	0
2014/15	120.0	99.5%	132.0	100.0%	35.0% *	0	0	0	1.00	0
2015/16	108.0	98.5%	120.0	99.5%	35.0% *	216,051	75,618	140,433	0.98	137,765
2016/17	96.0	97.1%	108.0	98.5%	35.0% *	63,625	22,269	41,356	0.97	40,033
2017/18	84.0	94.7%	96.0	97.1%	35.0% *	192,863	67,502	125,361	0.96	119,720
2018/19	72.0	86.1%	84.0	94.7%	35.0% *	584,865	204,703	380,162	0.95	359,633
2019/20	60.0	66.2%	72.0	86.1%	35.0% *	139,855	48,949	90,906	0.95	86,724
2020/21	48.0	47.3%	60.0	66.2%	35.0% *	607,417	212,596	394,821	0.95	376,659
2021/22	36.0	27.0%	48.0	47.3%	27.8% *	735,122	204,424	530,698	0.94	498,856
2022/23	24.0	4.9%	36.0	27.0%	23.2% *	1,109,920	257,931	851,989	0.93	788,090
2023/24	12.0	2.0%	24.0	4.9%	3.0% *	1,212,964	35,894	1,177,070	0.91	1,072,311
2024/25	0.0	0.0%	12.0	2.0%	2.0% *	1,312,599	26,252	1,286,347	0.88	1,130,699
Total						$6,175,281	$1,156,138	$5,019,143		$4,610,490

* - Limited to a maximum of 35% per actuarial judgment.

(3) and (5) are from Exhibit LE-2 (page 1).

(7) to 2023/24 is from Exhibit LE-11 (page 2), (9). The amount for 2024/25 is from Exhibit LE-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit LE-2 (page 1).

City of Miami Beach, Florida
Law Enforcement Liability

Projected Losses Paid October 1, 2025 to September 30, 2026

Claim Period (1)	Months of Development 9/30/25 (2)	Percent Losses Paid (3)	Months of Development 9/30/26 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/25 to 9/30/26 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/25 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/26 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/26 (9)X(10) (11)
1995/96	360.0	100.0%	372.0	100.0%	35.0% *	$0	$0	$0	1.00	$0
1996/97	348.0	100.0%	360.0	100.0%	35.0% *	0	0	0	1.00	0
1997/98	336.0	100.0%	348.0	100.0%	35.0% *	0	0	0	1.00	0
1998/99	324.0	100.0%	336.0	100.0%	35.0% *	0	0	0	1.00	0
1999/00	312.0	100.0%	324.0	100.0%	35.0% *	0	0	0	1.00	0
2000/01	300.0	100.0%	312.0	100.0%	35.0% *	0	0	0	1.00	0
2001/02	288.0	100.0%	300.0	100.0%	35.0% *	0	0	0	1.00	0
2002/03	276.0	100.0%	288.0	100.0%	35.0% *	0	0	0	1.00	0
2003/04	264.0	100.0%	276.0	100.0%	35.0% *	0	0	0	1.00	0
2004/05	252.0	100.0%	264.0	100.0%	35.0% *	0	0	0	1.00	0
2005/06	240.0	100.0%	252.0	100.0%	35.0% *	0	0	0	1.00	0
2006/07	228.0	100.0%	240.0	100.0%	35.0% *	0	0	0	1.00	0
2007/08	216.0	100.0%	228.0	100.0%	35.0% *	0	0	0	1.00	0
2008/09	204.0	100.0%	216.0	100.0%	35.0% *	0	0	0	1.00	0
2009/10	192.0	100.0%	204.0	100.0%	35.0% *	0	0	0	1.00	0
2010/11	180.0	100.0%	192.0	100.0%	35.0% *	0	0	0	1.00	0
2011/12	168.0	100.0%	180.0	100.0%	35.0% *	0	0	0	1.00	0
2012/13	156.0	100.0%	168.0	100.0%	35.0% *	0	0	0	1.00	0
2013/14	144.0	100.0%	156.0	100.0%	35.0% *	0	0	0	1.00	0
2014/15	132.0	100.0%	144.0	100.0%	35.0% *	0	0	0	1.00	0
2015/16	120.0	99.5%	132.0	100.0%	35.0% *	140,433	49,152	91,281	1.00	91,281
2016/17	108.0	98.5%	120.0	99.5%	35.0% *	41,356	14,475	26,881	0.98	26,370
2017/18	96.0	97.1%	108.0	98.5%	35.0% *	125,361	43,876	81,485	0.97	78,877
2018/19	84.0	94.7%	96.0	97.1%	35.0% *	380,162	133,057	247,105	0.96	235,985
2019/20	72.0	86.1%	84.0	94.7%	35.0% *	90,906	31,817	59,089	0.95	55,898
2020/21	60.0	66.2%	72.0	86.1%	35.0% *	394,821	138,187	256,634	0.95	244,829
2021/22	48.0	47.3%	60.0	66.2%	35.0% *	530,698	185,744	344,954	0.95	329,086
2022/23	36.0	27.0%	48.0	47.3%	27.8% *	851,989	236,923	615,066	0.94	578,162
2023/24	24.0	4.9%	36.0	27.0%	23.2% *	1,177,070	273,536	903,534	0.93	835,769
2024/25	12.0	2.0%	24.0	4.9%	3.0% *	1,286,347	38,065	1,248,282	0.91	1,137,185
2025/26	0.0	0.0%	12.0	2.0%	2.0% *	1,392,012	27,840	1,364,172	0.88	1,199,107
Total						$6,411,155	$1,172,672	$5,238,483		$4,812,549

* - Limited to a maximum of 35% per actuarial judgment.

(3) and (5) are from Exhibit LE-2 (page 1).

(7) to 2024/25 is from Exhibit LE-11 (page 3), (9). The amount for 2025/26 is from Exhibit LE-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit LE-2 (page 1).

City of Miami Beach, Florida
Law Enforcement Liability

Projected Losses Paid October 1, 2026 to September 30, 2027

Claim Period (1)	Months of Development 9/30/26 (2)	Percent Losses Paid (3)	Months of Development 9/30/27 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/26 to 9/30/27 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/26 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/27 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/27 (9)X(10) (11)
1995/96	372.0	100.0%	384.0	100.0%	35.0% *	$0	$0	$0	1.00	$0
1996/97	360.0	100.0%	372.0	100.0%	35.0% *	0	0	0	1.00	0
1997/98	348.0	100.0%	360.0	100.0%	35.0% *	0	0	0	1.00	0
1998/99	336.0	100.0%	348.0	100.0%	35.0% *	0	0	0	1.00	0
1999/00	324.0	100.0%	336.0	100.0%	35.0% *	0	0	0	1.00	0
2000/01	312.0	100.0%	324.0	100.0%	35.0% *	0	0	0	1.00	0
2001/02	300.0	100.0%	312.0	100.0%	35.0% *	0	0	0	1.00	0
2002/03	288.0	100.0%	300.0	100.0%	35.0% *	0	0	0	1.00	0
2003/04	276.0	100.0%	288.0	100.0%	35.0% *	0	0	0	1.00	0
2004/05	264.0	100.0%	276.0	100.0%	35.0% *	0	0	0	1.00	0
2005/06	252.0	100.0%	264.0	100.0%	35.0% *	0	0	0	1.00	0
2006/07	240.0	100.0%	252.0	100.0%	35.0% *	0	0	0	1.00	0
2007/08	228.0	100.0%	240.0	100.0%	35.0% *	0	0	0	1.00	0
2008/09	216.0	100.0%	228.0	100.0%	35.0% *	0	0	0	1.00	0
2009/10	204.0	100.0%	216.0	100.0%	35.0% *	0	0	0	1.00	0
2010/11	192.0	100.0%	204.0	100.0%	35.0% *	0	0	0	1.00	0
2011/12	180.0	100.0%	192.0	100.0%	35.0% *	0	0	0	1.00	0
2012/13	168.0	100.0%	180.0	100.0%	35.0% *	0	0	0	1.00	0
2013/14	156.0	100.0%	168.0	100.0%	35.0% *	0	0	0	1.00	0
2014/15	144.0	100.0%	156.0	100.0%	35.0% *	0	0	0	1.00	0
2015/16	132.0	100.0%	144.0	100.0%	35.0% *	91,281	31,948	59,333	1.00	59,333
2016/17	120.0	99.5%	132.0	100.0%	35.0% *	26,881	9,408	17,473	1.00	17,473
2017/18	108.0	98.5%	120.0	99.5%	35.0% *	81,485	28,520	52,965	0.98	51,959
2018/19	96.0	97.1%	108.0	98.5%	35.0% *	247,105	86,487	160,618	0.97	155,478
2019/20	84.0	94.7%	96.0	97.1%	35.0% *	59,089	20,681	38,408	0.96	36,680
2020/21	72.0	86.1%	84.0	94.7%	35.0% *	256,634	89,822	166,812	0.95	157,804
2021/22	60.0	66.2%	72.0	86.1%	35.0% *	344,954	120,734	224,220	0.95	213,906
2022/23	48.0	47.3%	60.0	66.2%	35.0% *	615,066	215,273	399,793	0.95	381,403
2023/24	36.0	27.0%	48.0	47.3%	27.8% *	903,534	251,257	652,277	0.94	613,140
2024/25	24.0	4.9%	36.0	27.0%	23.2% *	1,248,282	290,084	958,198	0.93	886,333
2025/26	12.0	2.0%	24.0	4.9%	3.0% *	1,364,172	40,368	1,323,804	0.91	1,205,985
2026/27	0.0	0.0%	12.0	2.0%	2.0% *	1,476,228	29,525	1,446,703	0.88	1,271,652
Total						$6,714,711	$1,214,107	$5,500,604		$5,051,146

* - Limited to a maximum of 35% per actuarial judgment.

(3) and (5) are from Exhibit LE-2 (page 1).

(7) to 2025/26 is from Exhibit LE-11 (page 4), (9). The amount for 2026/27 is from Exhibit LE-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit LE-2 (page 1).

City of Miami Beach, Florida
Law Enforcement Liability

Loss Rate and Severity Trend

Claim Period (1)	Legislative Trend (2022/23 = 1.000) (2)	Residual Trend (2022/23 = 1.000) (3)	Retention Index (2022/23 = 1.000) (4)	Loss Rate Trend (2022/23 = 1.000) (2)X(3)X(4) (5)	Exposure Trend (2022/23 = 1.000) (6)	Severity Trend (2022/23 = 1.000) (5)X(6) (7)
2017/18	1.000	1.276	1.000	1.276	1.000	1.276
2018/19	1.000	1.216	1.000	1.216	1.000	1.216
2019/20	1.000	1.158	1.000	1.158	1.000	1.158
2020/21	1.000	1.103	1.000	1.103	1.000	1.103
2021/22	1.000	1.050	1.000	1.050	1.000	1.050
2022/23	1.000	1.000	1.000	1.000	1.000	1.000
2023/24	1.000	0.952	1.000	0.952	1.000	0.952
2024/25	1.000	0.907	1.000	0.907	1.000	0.907
2025/26	1.000	0.864	1.000	0.864	1.000	0.864
2026/27	1.000	0.823	1.000	0.823	1.000	0.823

(2) is based on industry statistics and actuarial judgment.

(3) is based on 5% trend per actuarial judgment.

(4) is based on industry statistics and actuarial judgment.

(6) is based on 0% trend.

City of Miami Beach, Florida
Law Enforcement Liability

List of Large Claims

Claim Number (1)	Date of Loss (2)	Claim Period (3)	Assumed Maxium (4)		Limited Paid Losses 9/30/22 (5)		Limited Case Reserves 9/30/22 (6)		Limited Reported Incurred Losses 9/30/22 (7)	
EF2016009233-1	4/5/2016	2015/16	$88,178	A	$25,678		$50,000	*	$75,678	
FA2016009191-1	4/28/2016	2015/16	358,977	A	39,092		255,908	*	295,000	
EF2017008811-1	3/24/2017	2016/17	293,417	A	167,923		100,395	*	268,318	*
FA2017008934-1	11/12/2017	2017/18	454,580	A	260,830		155,000	*	415,830	*
EF2018009260-1	4/9/2018	2017/18	73,122	A	7,513		52,487	*	60,000	*
POL-EF20180005-1	4/20/2018	2017/18	121,880	A	37,480		67,521	*	105,000	*
POL-CIV20180012-1	10/25/2018	2018/19	112,054	A	26,784		68,216	*	95,000	*
POL-FA20220003-1	12/3/2018	2018/19	187,500	I	0		150,000	*	150,000	*
POL-EF20220002-1	2/4/2019	2018/19	1,191,880	A	18,120		586,880	*	605,000	
EF2019009207-1	12/10/2019	2019/20	217,844	A	142,844	*	60,000	*	202,844	*
POL-EF20210001-1	7/25/2021	2020/21	130,109	A	17,063	*	90,438	*	107,500	*
POL-FA20210009-1	11/23/2021	2021/22	275,000	I	0		137,500	*	137,500	*

The claim(s) indicated by a "*" have been limited in development.

(1) through (7) were provided by the City.

City of Miami Beach, Florida
General Liability

Exhibit GL-1

Data Summary as of September 30, 2022

Claim Period (1)	Specific Self-Insured Retention (2)	Aggregate Retention (3)	Months of Development 9/30/22 (4)	Payroll (000) (5)	Reported Claims 9/30/22 (6)	Reported Open Claims 9/30/22 (7)	Limited Paid Losses 9/30/22 (8)	Limited Case Reserves 9/30/22 (9)	Limited Reported Incurred Losses 9/30/22 (10)
To 1995/96	Tort cap	None	324.0	Not provided	2,459	0	$18,710,712	$0	$18,710,712
1996/97	Tort cap	None	312.0	57,231	172	0	1,208,829	0	1,208,829
1997/98	Tort cap	None	300.0	61,976	164	0	1,291,583	0	1,291,583
1998/99	Tort cap	None	288.0	68,497	113	0	996,253	0	996,253
1999/00	Tort cap	None	276.0	74,809	132	0	1,077,808	0	1,077,808
2000/01	Tort cap	None	264.0	73,865	134	0	941,886	0	941,886
2001/02	Tort cap	None	252.0	70,303	126	0	846,109	0	846,109
2002/03	Tort cap	None	240.0	76,473	132	0	689,865	0	689,865
2003/04	Tort cap	None	228.0	83,289	131	0	878,338	0	878,338
2004/05	Tort cap	None	216.0	84,786	89	0	617,810	0	617,810
2005/06	Tort cap	None	204.0	112,300	93	0	300,318	0	300,318
2006/07	Tort cap	None	192.0	122,895	89	0	461,812	0	461,812
2007/08	Tort cap	None	180.0	129,842	90	0	452,661	0	452,661
2008/09	Tort cap	None	168.0	135,954	99	0	686,156	0	686,156
2009/10	Tort cap	None	156.0	139,615	78	0	521,840	0	521,840
2010/11	Tort cap	None	144.0	140,288	86	0	1,023,569	0	1,023,569
2011/12	Tort cap	None	132.0	144,516	94	0	828,558	0	828,558
2012/13	Tort cap	None	120.0	135,454	80	0	1,191,811	0	1,191,811
2013/14	Tort cap	None	108.0	144,287	89	0	2,866,525	0	2,866,525
2014/15	Tort cap	None	96.0	141,271	89	0	497,595	0	497,595
2015/16	Tort cap	None	84.0	151,687	105	1	909,265	7,500	916,765
2016/17	Tort cap	None	72.0	166,079	114	10	1,532,447	194,017	1,726,464
2017/18	Tort cap	None	60.0	164,071	100	11	1,191,427	120,799	1,312,225
2018/19	Tort cap	None	48.0	164,860	98	24	753,438	675,779	1,429,216
2019/20	Tort cap	None	36.0	166,025	66	22	165,579	985,367	1,150,946
2020/21	Tort cap	None	24.0	168,443	66	19	108,431	624,346	732,776
2021/22	Tort cap	None	12.0	173,411	61	27	132,189	291,952	424,141
Total					5,149	114	$40,882,814	$2,899,760	$43,782,571

Data was provided by the City.

Summary of Percent Losses Paid, Losses Reported and Claims Reported

Months of Development (1)	Percent Losses Paid (2)	Percent Losses Reported (3)	Percent Claims Reported (4)
360.0	100.0%	100.0%	100.0%
348.0	100.0%	100.0%	100.0%
336.0	100.0%	100.0%	100.0%
324.0	100.0%	100.0%	100.0%
312.0	100.0%	100.0%	100.0%
300.0	100.0%	100.0%	100.0%
288.0	100.0%	100.0%	100.0%
276.0	100.0%	100.0%	100.0%
264.0	100.0%	100.0%	100.0%
252.0	100.0%	100.0%	100.0%
240.0	100.0%	100.0%	100.0%
228.0	100.0%	100.0%	100.0%
216.0	100.0%	100.0%	100.0%
204.0	100.0%	100.0%	100.0%
192.0	100.0%	100.0%	100.0%
180.0	100.0%	100.0%	100.0%
168.0	100.0%	100.0%	100.0%
156.0	100.0%	100.0%	100.0%
144.0	100.0%	100.0%	100.0%
132.0	100.0%	100.0%	100.0%
120.0	99.5%	100.0%	100.0%
108.0	98.5%	99.5%	100.0%
96.0	96.6%	98.5%	100.0%
84.0	94.3%	96.6%	100.0%
72.0	90.7%	93.8%	99.5%
60.0	85.5%	89.4%	98.5%
48.0	79.6%	83.1%	95.7%
36.0	66.3%	75.6%	92.0%
24.0	41.4%	50.4%	83.6%
12.0	12.8%	21.0%	66.9%

(2) is from Exhibit GL-2 (page 2).

(3) is from Exhibit GL-2 (page 3).

(4) is from Exhibit GL-2 (page 4).

Historical Unlimited and Gross of Recoveries Paid Losses ($000) and Unlimited and Gross of Recoveries Paid Loss Development

I. Historical Unlimited and Gross of Recoveries Paid Losses ($000)

Claim Period	Months of Development: 12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
2002/03	$174	$185	$389	$484	$498	$503	$600	$654	$654	$654	$654	$654	$654	$654	$654	$654	$654	$654	$690	$690
2003/04	16	405	643	718	723	794	794	794	794	794	794	794	794	794	794	794	794	878	878	
2004/05	71	145	213	356	499	544	544	544	544	569	569	569	569	569	569	569	618	618		
2005/06	91	148	249	297	305	311	312	312	306	306	306	306	306	306	306	300	300			
2006/07	58	191	422	454	461	482	482	483	483	483	483	483	483	483	462	462				
2007/08	54	91	302	373	385	385	438	438	505	505	505	505	505	453	453					
2008/09	85	217	441	482	531	547	624	625	625	625	625	625	686	686						
2009/10	30	83	165	374	434	503	503	511	511	511	511	522	522							
2010/11	50	118	405	665	721	721	721	721	929	930	1,024	1,024								
2011/12	50	214	321	417	446	647	745	792	792	829	829									
2012/13	20	60	222	522	541	564	570	610	1,192	1,192										
2013/14	30	940	1,603	1,696	1,779	1,998	2,151	2,867	2,867											
2014/15	51	116	252	275	418	451	447	498												
2015/16	204	489	805	983	822	908	909													
2016/17	282	1,115	1,250	1,306	1,515	1,532														
2017/18	879	1,363	1,476	1,999	1,191															
2018/19	31	418	705	753																
2019/20	71	95	166																	
2020/21	57	108																		
2021/22	132																			

II. Unlimited and Gross of Recoveries Paid Loss Development

Claim Period	Months of Development: 12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
2002/03	1.065	2.105	1.244	1.030	1.009	1.192	1.090	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.055	1.000	
2003/04	24.638	1.589	1.116	1.007	1.099	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.106	1.000		
2004/05	2.037	1.469	1.676	1.401	1.091	1.000	1.000	1.000	1.046	1.000	1.000	1.000	1.000	1.000	1.000	1.086	1.000			
2005/06	1.631	1.682	1.192	1.028	1.018	1.004	1.000	0.980	1.001	1.000	1.000	1.000	1.000	1.000	0.981	1.000				
2006/07	3.263	2.211	1.076	1.017	1.045	1.000	1.003	1.000	1.000	1.000	1.000	1.000	1.000	0.956	1.000					
2007/08	1.702	3.307	1.235	1.032	1.000	1.137	1.001	1.153	1.000	1.000	1.000	1.000	0.896	1.000						
2008/09	2.553	2.038	1.091	1.103	1.031	1.140	1.002	1.000	1.000	1.000	1.000	1.098	1.000							
2009/10	2.730	1.998	2.261	1.161	1.159	1.000	1.015	1.000	1.000	1.000	1.022	1.000								
2010/11	2.339	3.428	1.643	1.084	1.000	1.000	1.000	1.289	1.000	1.101	1.000									
2011/12	4.319	1.499	1.297	1.070	1.451	1.151	1.064	1.000	1.046	1.000										
2012/13	3.030	3.714	2.351	1.037	1.042	1.012	1.069	1.955	1.000											
2013/14	31.203	1.705	1.058	1.049	1.123	1.077	1.333	1.000												
2014/15	2.275	2.175	1.090	1.521	1.078	0.992	1.113													
2015/16	2.399	1.645	1.221	0.836	1.104	1.002														
2016/17	3.958	1.121	1.045	1.160	1.012															
2017/18	1.551	1.083	1.354	0.596																
2018/19	13.626	1.687	1.069																	
2019/20	1.334	1.740																		
2020/21	1.917																			
2021/22																				
Average																				
All	5.662	2.011	1.354	1.071	1.084	1.050	1.053	1.115	1.009	1.010	1.002	1.012	0.985	0.993	0.996	1.021	1.035	1.027	1.000	
Wtd 3	3.919	1.251	1.183	0.823	1.049	1.045	1.254	1.136	1.013	1.041	1.005	1.037	0.969	0.983	0.996	1.029	1.041			
Last 3	5.626	1.504	1.156	0.864	1.065	1.023	1.172	1.318	1.015	1.034	1.007	1.033	0.965	0.985	0.994	1.029	1.035			
Last 5	2.476	1.485	1.127	1.015	1.075	1.030	1.082	1.096	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
x-hi,low																				
Previous	3.500	1.600	1.250	1.100	1.075	1.040	1.025	1.020	1.010	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	3.250	1.600	1.200	1.075	1.060	1.040	1.025	1.020	1.010	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative	7.842	2.413	1.508	1.257	1.169	1.103	1.061	1.035	1.015	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Percent Losses Paid	12.8%	41.4%	66.3%	79.6%	85.5%	90.7%	94.3%	96.6%	98.5%	99.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Section I was provided by the City and previous actuarial studies. Shaded area is the old database.

Historical Unlimited and Gross of Recoveries Reported Incurred Losses ($000) and Unlimited and Gross of Recoveries Reported Incurred Loss Development

I. Historical Unlimited and Gross of Recoveries Reported Incurred Losses ($000)

Claim Period	Months of Development: 12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
2002/03	$356	$459	$588	$673	$659	$552	$658	$673	$664	$656	$656	$656	$681	$681	$682	$682	$682	$654	$690	$690
2003/04	475	900	975	898	773	809	795	795	794	794	794	794	794	794	794	794	794	878	878	
2004/05	492	768	839	584	575	554	554	552	552	582	632	574	574	574	574	569	618	618		
2005/06	346	583	512	506	373	348	336	331	314	314	306	306	306	306	306	300	300			
2006/07	347	651	807	607	546	512	512	514	513	493	493	493	493	493	462	462				
2007/08	342	490	582	627	527	527	580	572	505	505	505	505	505	453	453					
2008/09	293	441	603	594	626	642	718	632	627	654	654	625	686	686						
2009/10	232	359	491	617	599	656	525	580	580	580	580	522	522							
2010/11	229	477	743	950	982	761	759	759	967	967	1,024	1,024								
2011/12	701	883	1,006	1,133	872	803	923	909	856	829	829									
2012/13	319	281	364	572	575	590	630	672	1,192	1,192										
2013/14	306	1,155	1,848	1,889	1,955	2,523	2,515	2,867	2,867											
2014/15	720	292	532	602	610	628	514	498												
2015/16	672	628	1,065	1,194	1,141	1,130	917													
2016/17	535	1,601	1,739	1,722	1,638	1,726														
2017/18	1,339	1,884	1,934	2,392	1,312															
2018/19	364	908	1,247	1,429																
2019/20	287	318	1,151																	
2020/21	195	733																		
2021/22	424																			

II. Unlimited and Gross of Recoveries Reported Incurred Loss Development

Claim Period	Months of Development: 12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
2002/03	1.290	1.281	1.144	0.979	0.837	1.194	1.022	0.986	0.989	1.000	1.000	1.038	1.000	1.001	1.000	1.000	0.960	1.055	1.000	
2003/04	1.893	1.084	0.921	0.861	1.046	0.983	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.106	1.000		
2004/05	1.560	1.092	0.696	0.986	0.963	1.000	0.996	1.000	1.054	1.086	0.908	1.000	1.000	1.000	0.991	1.086	1.000			
2005/06	1.685	0.878	0.988	0.738	0.932	0.964	0.985	0.950	0.999	0.975	1.000	1.000	1.000	1.000	0.981	1.000				
2006/07	1.877	1.240	0.752	0.900	0.937	1.000	1.005	0.998	0.961	1.000	1.000	1.000	1.000	0.937	1.000					
2007/08	1.433	1.187	1.076	0.841	1.000	1.100	0.986	0.883	1.000	1.000	1.000	1.000	0.896	1.000						
2008/09	1.502	1.369	0.985	1.054	1.026	1.118	0.880	0.992	1.044	1.000	0.955	1.098	1.000							
2009/10	1.548	1.368	1.257	0.972	1.094	0.800	1.105	1.000	1.000	1.000	0.900	1.000								
2010/11	2.084	1.560	1.278	1.033	0.775	0.997	1.000	1.274	1.000	1.058	1.000									
2011/12	1.259	1.139	1.126	0.770	0.921	1.150	0.985	0.941	0.968	1.000										
2012/13	0.881	1.296	1.571	1.005	1.026	1.068	1.067	1.774	1.000											
2013/14	3.777	1.600	1.022	1.035	1.291	0.997	1.140	1.000												
2014/15	0.406	1.822	1.132	1.013	1.030	0.818	0.968													
2015/16	0.935	1.694	1.122	0.956	0.990	0.811														
2016/17	2.991	1.086	0.990	0.951	1.054															
2017/18	1.407	1.026	1.237	0.549																
2018/19	2.493	1.373	1.146																	
2019/20	1.106	3.624																		
2020/21	3.756																			
2021/22																				
Average																				
All	1.783	1.429	1.085	0.915	0.995	1.000	1.011	1.066	1.001	1.012	0.974	1.017	0.985	0.990	0.995	1.021	1.022	1.027	1.000	
Wtd 3	2.313	1.393	1.127	0.771	1.028	0.922	1.103	1.105	0.991	1.024	0.961	1.037	0.969	0.975	0.992	1.029	1.027			
Last 3	2.452	2.008	1.125	0.818	1.025	0.875	1.058	1.238	0.990	1.019	0.952	1.033	0.965	0.979	0.991	1.029	1.022			
Last 5	2.297	1.384	1.133	0.973	1.037	0.961	1.017	1.091	1.000	1.000	0.985	1.000	1.000	1.000	0.997					
x-hi,low																				
Previous	2.000	1.350	1.100	1.075	1.050	1.030	1.020	1.010	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	2.400	1.500	1.100	1.075	1.050	1.030	1.020	1.010	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative	4.764	1.985	1.323	1.203	1.119	1.066	1.035	1.015	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Percent Losses Reported	21.0%	50.4%	75.6%	83.1%	89.4%	93.8%	96.6%	98.5%	99.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Section I was provided by the City and previous actuarial studies. Shaded area is the old database.

City of Miami Beach, Florida
General Liability

Historical Reported Claims and Reported Claim Development

I. Historical Reported Claims

Claim Period	Months of Development: 12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
2002/03																			#REF!	132
2003/04																		#REF!	131	
2004/05																	#REF!	89		
2005/06																#REF!	93			
2006/07															#REF!	89				
2007/08														#REF!	90					
2008/09													#REF!	99						
2009/10												#REF!	78							
2010/11											#REF!	86								
2011/12										#REF!	94									
2012/13									#REF!	80										
2013/14								#REF!	89											
2014/15							#REF!	89												
2015/16						#REF!	105													
2016/17					#REF!	114														
2017/18				#REF!	100															
2018/19			#REF!	98																
2019/20		#REF!	66																	
2020/21	#REF!	66																		
2021/22	61																			

II. Reported Claim Development

Claim Period	Months of Development: 12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
2002/03																			#REF!	
2003/04																		#REF!		
2004/05																	#REF!			
2005/06																#REF!				
2006/07															#REF!					
2007/08														#REF!						
2008/09													#REF!							
2009/10												#REF!								
2010/11											#REF!									
2011/12										#REF!										
2012/13									#REF!											
2013/14								#REF!												
2014/15							#REF!													
2015/16						#REF!														
2016/17					#REF!															
2017/18				#REF!																
2018/19			#REF!																	
2019/20		#REF!																		
2020/21	#REF!																			
2021/22																				
Average																				
All	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	
Wtd 3																				
Last 3																				
Last 5																				
x-hi,low																				
Previous	1.500	1.100	1.040	1.030	1.010	1.005	1.000	1.000	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	1.250	1.100	1.040	1.030	1.010	1.005	1.000	1.000	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	1.495	1.196	1.087	1.045	1.015	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Percent Claims Reported	66.9%	83.6%	92.0%	95.7%	98.5%	99.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Section I was provided by the City and previous actuarial studies. Shaded area is the old database.

Developed Limited Paid Losses, Reported Incurred Losses and Case Reserves

Claim Period (1)	Months of Development 9/30/22 (2)	Percent Losses Paid (3)	Percent Losses Reported (4)	Percent Losses Reserved 9/30/22 ((4)-(3))/ (100.0%-(3)) (5)	Limited Paid Losses 9/30/22 (6)	Limited Case Reserves 9/30/22 (7)	Limited Reported Incurred Losses 9/30/22 (8)	Developed Limited Paid Losses (6)/(3) (9)	Developed Limited Reported Incurred Losses (8)/(4) (10)	Developed Limited Case Reserves (6)+(7)/(5) (11)
To 1995/96	324.0	100.0%	100.0%	100.0%	$18,710,712	$0	$18,710,712	$18,710,712	$18,710,712	$18,710,712
1996/97	312.0	100.0%	100.0%	100.0%	1,208,829	0	1,208,829	1,208,829	1,208,829	1,208,829
1997/98	300.0	100.0%	100.0%	100.0%	1,291,583	0	1,291,583	1,291,583	1,291,583	1,291,583
1998/99	288.0	100.0%	100.0%	100.0%	996,253	0	996,253	996,253	996,253	996,253
1999/00	276.0	100.0%	100.0%	100.0%	1,077,808	0	1,077,808	1,077,808	1,077,808	1,077,808
2000/01	264.0	100.0%	100.0%	100.0%	941,886	0	941,886	941,886	941,886	941,886
2001/02	252.0	100.0%	100.0%	100.0%	846,109	0	846,109	846,109	846,109	846,109
2002/03	240.0	100.0%	100.0%	100.0%	689,865	0	689,865	689,865	689,865	689,865
2003/04	228.0	100.0%	100.0%	100.0%	878,338	0	878,338	878,338	878,338	878,338
2004/05	216.0	100.0%	100.0%	100.0%	617,810	0	617,810	617,810	617,810	617,810
2005/06	204.0	100.0%	100.0%	100.0%	300,318	0	300,318	300,318	300,318	300,318
2006/07	192.0	100.0%	100.0%	100.0%	461,812	0	461,812	461,812	461,812	461,812
2007/08	180.0	100.0%	100.0%	100.0%	452,661	0	452,661	452,661	452,661	452,661
2008/09	168.0	100.0%	100.0%	100.0%	686,156	0	686,156	686,156	686,156	686,156
2009/10	156.0	100.0%	100.0%	100.0%	521,840	0	521,840	521,840	521,840	521,840
2010/11	144.0	100.0%	100.0%	100.0%	1,023,569	0	1,023,569	1,023,569	1,023,569	1,023,569
2011/12	132.0	100.0%	100.0%	100.0%	828,558	0	828,558	828,558	828,558	828,558
2012/13	120.0	99.5%	100.0%	100.0%	1,191,811	0	1,191,811	1,197,800	1,191,811	1,191,811
2013/14	108.0	98.5%	99.5%	66.7%	2,866,525	0	2,866,525	2,910,178	2,880,930	2,866,525
2014/15	96.0	96.6%	98.5%	55.9%	497,595	0	497,595	515,109	505,173	497,595
2015/16	84.0	94.3%	96.6%	40.4%	909,265	7,500	916,765	964,226	949,032	927,852
2016/17	72.0	90.7%	93.8%	33.3%	1,532,447	194,017	1,726,464	1,689,578	1,840,580	2,114,498
2017/18	60.0	85.5%	89.4%	26.9%	1,191,427	120,798	1,312,225	1,393,482	1,467,813	1,640,548
2018/19	48.0	79.6%	83.1%	17.2%	753,438	675,778	1,429,216	946,530	1,719,875	4,080,101 *
2019/20	36.0	66.3%	75.6%	27.6%	165,579	985,367	1,150,946	249,742	1,503,645 *	2,325,212 *
2020/21	24.0	41.4%	50.4%	15.4%	108,431	624,345	732,776	261,911	1,404,185 *	2,069,501 *
2021/22	12.0	12.8%	21.0%	9.4%	132,189	291,952	424,141	563,904 *	1,567,516 *	2,805,142 *

(3) and (4) are based on Exhibit GL-2 (page 1).

(6), (7) and (8) are from Exhibit GL-1.

Preliminary Projected Ultimate Limited Losses to 2021/22

Claim Period (1)	Developed Limited Paid Losses (2)	Developed Limited Reported Incurred Losses (3)	Developed Limited Case Reserves (4)	Preliminary Projected Ultimate Limited Losses (5)
To 1995/96	$18,710,712	$18,710,712	$18,710,712	$18,710,712
1996/97	1,208,829	1,208,829	1,208,829	1,208,829
1997/98	1,291,583	1,291,583	1,291,583	1,291,583
1998/99	996,253	996,253	996,253	996,253
1999/00	1,077,808	1,077,808	1,077,808	1,077,808
2000/01	941,886	941,886	941,886	941,886
2001/02	846,109	846,109	846,109	846,109
2002/03	689,865	689,865	689,865	689,865
2003/04	878,338	878,338	878,338	878,338
2004/05	617,810	617,810	617,810	617,810
2005/06	300,318	300,318	300,318	300,318
2006/07	461,812	461,812	461,812	461,812
2007/08	452,661	452,661	452,661	452,661
2008/09	686,156	686,156	686,156	686,156
2009/10	521,840	521,840	521,840	521,840
2010/11	1,023,569	1,023,569	1,023,569	1,023,569
2011/12	828,558	828,558	828,558	828,558
2012/13	1,197,800	1,191,811	1,191,811	1,191,811
2013/14	2,910,178	2,880,930	2,866,525	2,866,525
2014/15	515,109	505,173	497,595	497,595
2015/16	964,226	949,032	927,852	949,032
2016/17	1,689,578	1,840,580	2,114,498	1,840,580
2017/18	1,393,482	1,467,813	1,640,548	1,467,813
2018/19	946,530	1,719,875	4,080,101	1,719,875
2019/20	249,742	1,503,645	2,325,212	1,503,645
2020/21	261,911	1,404,185	2,069,501	1,404,185
2021/22	563,904	1,567,516	2,805,142	1,567,516

(2), (3) and (4) are from Exhibit GL-3.

(5) is based on (2) to (4), weighted as follows:

Subject to a minimum of Exhibit GL-1, (10) and minimum 25% of case reserves or $10,000 per open claim as IBNR for claim periods with open claims.

Claim Period	Developed Limited Paid Losses	Developed Limited Reported Incurred Losses	Developed Limited Case Reserves
to 2007/08	0.0%	100.0%	0.0%
2008/09	0.0%	100.0%	0.0%
2009/10	0.0%	100.0%	0.0%
2010/11	0.0%	100.0%	0.0%
2011/12	0.0%	100.0%	0.0%
2012/13	0.0%	100.0%	0.0%
2013/14	0.0%	100.0%	0.0%
2014/15	0.0%	100.0%	0.0%
2015/16	0.0%	100.0%	0.0%
2016/17	0.0%	100.0%	0.0%
2017/18	0.0%	100.0%	0.0%
2018/19	0.0%	100.0%	0.0%
2019/20	0.0%	100.0%	0.0%
2020/21	0.0%	100.0%	0.0%
2021/22	0.0%	100.0%	0.0%

Bornhuetter - Ferguson Analysis

I. A-priori Loss Rate

Claim Period (1)	Preliminary Projected Ultimate Limited Losses (2)	Payroll (000) (3)	Limited Loss Rate per $1,000 of Payroll (2)/(3) (4)	Loss Rate Trend (2022/23 = 1.000) (5)	Trended Limited Loss Rate per $1,000 of Payroll (4)X(5) (6)	Projected A-priori Loss Rate per $1,000 of Payroll (7)/(5) (8)
2017/18	$1,467,813	$164,071	$8.95	1.051	$9.40	$8.99
2018/19	1,719,875	164,860	10.43	1.041	10.86	9.08
2019/20	1,503,645	166,025	9.06	1.030	9.33	9.17
2020/21	1,404,185	168,443	8.34	1.020	8.50	9.26
2021/22	1,567,516	173,411	9.04	1.010	9.13	9.35

(7) Projected 2022/23 a-priori loss rate per $1,000 of Payroll $9.44

II. Bornhuetter - Ferguson Analysis Based on Limited Paid Losses

Claim Period (1)	Limited Paid Losses 9/30/22 (2)	Percent Losses Paid (3)	Projected A-priori Loss Rate per $1,000 of Payroll (4)	Payroll (000) (5)	B-F Unpaid Losses (100.0%-(3)) X(4)X(5) (6)	B-F Ultimate Limited Paid Losses (2)+(6) (7)
2017/18	$1,191,427	85.5%	$8.99	$164,071	$213,785	$1,405,212
2018/19	753,438	79.6%	9.08	164,860	305,242	1,058,680
2019/20	165,579	66.3%	9.17	166,025	512,890	678,469
2020/21	108,431	41.4%	9.26	168,443	913,888	1,022,319
2021/22	132,189	12.8%	9.35	173,411	1,414,028	1,546,217

III. Bornhuetter - Ferguson Analysis Based on Limited Reported Incurred Losses

Claim Period (1)	Limited Reported Incurred Losses 9/30/22 (2)	Percent Losses Reported (3)	Projected A-priori Loss Rate per $1,000 of Payroll (4)	Payroll (000) (5)	B-F Unreported Losses (100.0%-(3)) X(4)X(5) (6)	B-F Ultimate Limited Reported Losses (2)+(6) (7)
2017/18	$1,312,225	89.4%	$8.99	$164,071	$156,284	$1,468,509
2018/19	1,429,216	83.1%	9.08	164,860	252,872	1,682,088
2019/20	1,150,946	75.6%	9.17	166,025	371,350	1,522,296
2020/21	732,776	50.4%	9.26	168,443	773,530	1,506,306
2021/22	424,141	21.0%	9.35	173,411	1,281,057	1,705,198

Section I, (2) is from Exhibit GL-4.

Section I, (3), Section II, (5) and Section III, (5) were provided by the City.

Section I, (5) is from Exhibit GL-12.

Section I, (7) is based on Section I, (6) and the following weights:

Claim Period	Weight
2017/18	20.0%
2018/19	20.0%
2019/20	20.0%
2020/21	20.0%
2021/22	20.0%

Sections II and III, (2) are from Exhibit GL-1.

Sections II and III, (3) are based on Exhibit GL-2 (page 1).

Sections II and III, (4) are from Section I, (8).

City of Miami Beach, Florida
General Liability

Frequency Times Severity Analysis

I. Projected Ultimate Claims

Claim Period (1)	Months of Development 9/30/22 (2)	Reported Claims 9/30/22 (3)	Percent Claims Reported (4)	Projected Ultimate Claims (3)/(4) (5)	Reported Open Claims 9/30/22 (6)	Number of IBNR Claims (5)-(3) (7)	Open Claims 9/30/22 (6)+(7) (8)
2017/18	60.0	100	98.5%	102	11	2	13
2018/19	48.0	98	95.7%	102	24	4	28
2019/20	36.0	66	92.0%	72	22	6	28
2020/21	24.0	66	83.6%	79	19	13	32
2021/22	12.0	61	66.9%	91	27	30	57

II. Frequency Times Severity

Claim Period (1)	Preliminary Projected Ultimate Limited Losses (2)	Projected Ultimate Claims (3)	Average Severity (2)/(3) (4)	Severity Trend (2022/23 = 1.000) (5)	Trended Average Claim Severity (4)X(5) (6)	De-Trended Projected 2022/23 Average Claim Severity (7)/(5) (8)	Frequency Times Severity (3)X(8) (9)
2017/18	$1,467,813	102	$14,390	1.160	$16,699	$16,397	$1,672,483
2018/19	1,719,875	102	16,862	1.126	18,993	16,892	1,722,992
2019/20	1,503,645	72	20,884	1.093	22,834	17,402	1,252,960
2020/21	1,404,185	79	17,774	1.061	18,864	17,928	1,416,294
2021/22	1,567,516	91	17,225	1.030	17,746	18,469	1,680,696
	(7) Projected 2022/23 average claim severity				$19,027		

Section I, (3) and (6) are from Exhibit GL-1.

Section I, (4) is from Exhibit GL-2.

Section II, (2) is from Exhibit GL-4.

Section II, (3) is from Section I, (5).

Section II, (5) is from Exhibit GL-12.

Section II, (7) is based on (6) and the following weights:

Claim Period	Weight
2017/18	20.0%
2018/19	20.0%
2019/20	20.0%
2020/21	20.0%
2021/22	20.0%

Projected Ultimate Limited Losses to 2021/22

Claim Period (1)	Developed Limited Paid Losses (2)	Developed Limited Reported Incurred Losses (3)	Developed Limited Case Reserves (4)	B-F Paid Method Ultimate Losses (5)	B-F Reported Method Ultimate Losses (6)	Frequency Times Severity (7)	Previous Projected Ultimate Limited Losses (9/30/21) (8)	Projected Ultimate Limited Losses (9)	Change in Projected Ultimate Limited Losses (9)-(8) (10)
To 1995/96	$18,710,712	$18,710,712	$18,710,712				$18,718,308	$18,710,712	($7,596)
1996/97	1,208,829	1,208,829	1,208,829				1,208,829	1,208,829	0
1997/98	1,291,583	1,291,583	1,291,583				1,291,583	1,291,583	0
1998/99	996,253	996,253	996,253				996,253	996,253	0
1999/00	1,077,808	1,077,808	1,077,808				1,077,808	1,077,808	0
2000/01	941,886	941,886	941,886				941,886	941,886	0
2001/02	846,109	846,109	846,109				846,109	846,109	0
2002/03	689,865	689,865	689,865				689,865	689,865	0
2003/04	878,338	878,338	878,338				878,338	878,338	0
2004/05	617,810	617,810	617,810				617,810	617,810	0
2005/06	300,318	300,318	300,318				300,318	300,318	0
2006/07	461,812	461,812	461,812				461,812	461,812	0
2007/08	452,661	452,661	452,661				452,661	452,661	0
2008/09	686,156	686,156	686,156				686,156	686,156	0
2009/10	521,840	521,840	521,840				521,840	521,840	0
2010/11	1,023,569	1,023,569	1,023,569				1,023,569	1,023,569	0
2011/12	828,558	828,558	828,558				828,558	828,558	0
2012/13	1,197,800	1,191,811	1,191,811				1,191,783	1,191,811	28
2013/14	2,910,178	2,880,930	2,866,525				2,867,199	2,866,525	(674)
2014/15	515,109	505,173	497,595				529,434	497,595	(31,839)
2015/16	964,226	949,032	927,852				1,422,777	949,032	(473,745)
2016/17	1,689,578	1,840,580	2,114,498				1,877,268	1,840,580	(36,688)
2017/18	1,393,482	1,467,813	1,640,548	1,405,212	1,468,509	1,672,483	3,008,838	1,467,813	(1,541,025)
2018/19	946,530	1,719,875	4,080,101	1,058,680	1,682,088	1,722,992	1,916,661	1,716,096	(200,564)
2019/20	249,742	1,503,645	2,325,212	678,469	1,522,296	1,252,960	743,141	1,507,375	764,234
2020/21	261,911	1,404,185	2,069,501	1,022,319	1,506,306	1,416,294	1,057,942	1,455,246	397,304
2021/22	563,904	1,567,516	2,805,142	1,546,217	1,705,198	1,680,696	2,035,500	1,677,662	(357,838)

(2), (3) and (4) are from Exhibit GL-3.

(5) and (6) are from Exhibit GL-5.

(7) is from Exhibit GL-6.

(8) is from the previous study.

(9) is based on (2) to (8), weighted as follows:

Subject to a minimum of Exhibit GL-1, (10) and minimum 25% of case reserves or $10,000 per open claim as IBNR for claim periods with open claims.

Claim Period	Developed Limited Paid Losses	Developed Limited Reported Incurred Losses	Developed Limited Case Reserves	B-F Paid Method Ultimate Losses	B-F Reported Method Ultimate Losses	Frequency Times Severity	Previous Projected Ultimate Limited Losses
to 2007/08	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2008/09	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2009/10	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2010/11	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2011/12	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2012/13	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2013/14	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2014/15	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2015/16	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2016/17	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2017/18	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2018/19	0.0%	90.0%	0.0%	0.0%	10.0%	0.0%	0.0%
2019/20	0.0%	80.0%	0.0%	0.0%	20.0%	0.0%	0.0%
2020/21	0.0%	50.0%	0.0%	0.0%	50.0%	0.0%	0.0%
2021/22	0.0%	20.0%	0.0%	0.0%	80.0%	0.0%	0.0%
Total Last 5	$3,415,569	$7,663,034	$12,920,504	$5,710,898	$7,884,399	$7,745,424	$8,762,082

Average projected ultimate limited losses total last 5, excluding previous: $7,556,638
Projected ultimate limited losses total last 5 $7,824,192

Projected Ultimate Limited Losses for 2022/23 and Subsequent

Claim Period (1)	Projected Ultimate Limited Losses (2)	Payroll (000) (3)	Limited Loss Rate per $1,000 of Payroll (2)/(3) (4)	Loss Rate Trend (2022/23 = 1.000) (5)	Trended Limited Loss Rate per $1,000 of Payroll (4)X(5) (6)
2017/18	$1,467,813	$164,071	$8.95	1.051	$9.40
2018/19	1,716,096	164,860	10.41	1.041	10.83
2019/20	1,507,375	166,025	9.08	1.030	9.35
2020/21	1,455,246	168,443	8.64	1.020	8.81
2021/22	1,677,662	173,411	9.67	1.010	9.77
Total	$7,824,192	$836,810	$9.35		$9.63

Claim Period (1)	Projected Limited Loss Rate per $1,000 of Payroll (7)	Projected Payroll (000) (8)	Projected Ultimate Limited Losses (7)X(8) (9)	Present Value Factor (10)	Present Value of Projected Limited Loss Rate per $1,000 of Payroll (7)X(10) (11)	Present Value of Projected Ultimate Limited Losses (8)X(11) (12)
2022/23	$10.60	$182,082	$1,929,724	0.90	$9.51	$1,730,962
2023/24	10.70	191,186	2,046,473	0.90	9.60	1,835,686
2024/25	10.81	200,745	2,170,284	0.90	9.70	1,946,745
2025/26	10.92	210,783	2,301,587	0.90	9.79	2,064,523
2026/27	11.03	221,322	2,440,833	0.90	9.89	2,189,427

(2) is from Exhibit GL-7.

(3) was provided by the City.

(5) is from Exhibit GL-12.

(7) for 2022/23 is based on (6) and the following weights plus 10.0% per actuarial judgment:

Claim Period	Weight
2017/18	20.0%
2018/19	20.0%
2019/20	20.0%
2020/21	20.0%
2021/22	20.0%

(7) for 2023/24 and subsequent are based on 2022/23 plus the trend in Exhibit GL-12.

(8) is based on (3) for 2021/22 and a 5% trend.

(10) is based on a 4% interest rate and the payout pattern in Exhibit GL-2 (page 1).

City of Miami Beach, Florida
General Liability

Estimated Outstanding Losses as of September 30, 2022

Claim Period (1)	Limited Paid Losses 9/30/22 (2)	Limited Case Reserves 9/30/22 (3)	Limited Reported Incurred Losses 9/30/22 (4)	Projected Ultimate Limited Losses (5)	Estimated Outstanding Losses 9/30/22 (5)-(2) (6)	Estimated IBNR 9/30/22 (6)-(3) (7)
To 1995/96	$18,710,712	$0	$18,710,712	$18,710,712	$0	$0
1996/97	1,208,829	0	1,208,829	1,208,829	0	0
1997/98	1,291,583	0	1,291,583	1,291,583	0	0
1998/99	996,253	0	996,253	996,253	0	0
1999/00	1,077,808	0	1,077,808	1,077,808	0	0
2000/01	941,886	0	941,886	941,886	0	0
2001/02	846,109	0	846,109	846,109	0	0
2002/03	689,865	0	689,865	689,865	0	0
2003/04	878,338	0	878,338	878,338	0	0
2004/05	617,810	0	617,810	617,810	0	0
2005/06	300,318	0	300,318	300,318	0	0
2006/07	461,812	0	461,812	461,812	0	0
2007/08	452,661	0	452,661	452,661	0	0
2008/09	686,156	0	686,156	686,156	0	0
2009/10	521,840	0	521,840	521,840	0	0
2010/11	1,023,569	0	1,023,569	1,023,569	0	0
2011/12	828,558	0	828,558	828,558	0	0
2012/13	1,191,811	0	1,191,811	1,191,811	0	0
2013/14	2,866,525	0	2,866,525	2,866,525	0	0
2014/15	497,595	0	497,595	497,595	0	0
2015/16	909,265	7,500	916,765	949,032	39,767	32,267
2016/17	1,532,447	194,017	1,726,464	1,840,580	308,133	114,116
2017/18	1,191,427	120,799	1,312,225	1,467,813	276,386	155,587
2018/19	753,438	675,779	1,429,216	1,716,096	962,658	286,879
2019/20	165,579	985,367	1,150,946	1,507,375	1,341,796	356,429
2020/21	108,431	624,346	732,776	1,455,246	1,346,815	722,469
2021/22	132,189	291,952	424,141	1,677,662	1,545,473	1,253,521
Total	$40,882,814	$2,899,760	$43,782,571	$46,703,842	$5,821,028	$2,921,268

(2), (3) and (4) are from Exhibit GL-1, and net of the specific self insured retention and aggregate retention.

(5) is from Exhibit GL-7.

City of Miami Beach, Florida
General Liability

Present Value of Estimated Outstanding Losses as of December 31, 2021

Claim Period (1)	Estimated Outstanding Losses 9/30/22 (2)	Present Value Factor (3)	Present Value of Estimated Outstanding Losses 9/30/22 (2)X(3) (4)	Anticipated Future Investment Income (2)-(4) (5)
To 1995/96	$0	1.00	$0	$0
1996/97	0	1.00	0	0
1997/98	0	1.00	0	0
1998/99	0	1.00	0	0
1999/00	0	1.00	0	0
2000/01	0	1.00	0	0
2001/02	0	1.00	0	0
2002/03	0	1.00	0	0
2003/04	0	1.00	0	0
2004/05	0	1.00	0	0
2005/06	0	1.00	0	0
2006/07	0	1.00	0	0
2007/08	0	1.00	0	0
2008/09	0	1.00	0	0
2009/10	0	1.00	0	0
2010/11	0	1.00	0	0
2011/12	0	1.00	0	0
2012/13	0	0.98	0	0
2013/14	0	0.97	0	0
2014/15	0	0.96	0	0
2015/16	39,767	0.95	37,580	2,187
2016/17	308,133	0.94	288,721	19,412
2017/18	276,386	0.93	256,763	19,623
2018/19	962,658	0.92	884,683	77,975
2019/20	1,341,796	0.92	1,237,136	104,660
2020/21	1,346,815	0.93	1,247,151	99,664
2021/22	1,545,473	0.92	1,421,835	123,638
Total	$5,821,028		$5,373,869	$447,159

(2) is from Exhibit GL-9.

(3) is based on a 4% interest rate and the payout pattern in Exhibit GL-2 (page 1).

City of Miami Beach, Florida
General Liability

Projected Losses Paid October 1, 2022 to September 30, 2023

Claim Period (1)	Months of Development 9/30/22 (2)	Percent Losses Paid (3)	Months of Development 9/30/23 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/22 to 9/30/23 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/22 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/23 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/23 (9)X(10) (11)
To 1995/96	288.0	100.0%	336.0	100.0%	25.0% *	$0	$0	$0	1.00	$0
1996/97	276.0	100.0%	324.0	100.0%	25.0% *	0	0	0	1.00	0
1997/98	264.0	100.0%	312.0	100.0%	25.0% *	0	0	0	1.00	0
1998/99	252.0	100.0%	300.0	100.0%	25.0% *	0	0	0	1.00	0
1999/00	240.0	100.0%	288.0	100.0%	25.0% *	0	0	0	1.00	0
2000/01	228.0	100.0%	276.0	100.0%	25.0% *	0	0	0	1.00	0
2001/02	216.0	100.0%	264.0	100.0%	25.0% *	0	0	0	1.00	0
2002/03	204.0	100.0%	252.0	100.0%	25.0% *	0	0	0	1.00	0
2003/04	192.0	100.0%	240.0	100.0%	25.0% *	0	0	0	1.00	0
2004/05	180.0	100.0%	228.0	100.0%	25.0% *	0	0	0	1.00	0
2005/06	168.0	100.0%	216.0	100.0%	25.0% *	0	0	0	1.00	0
2006/07	156.0	100.0%	204.0	100.0%	25.0% *	0	0	0	1.00	0
2007/08	144.0	100.0%	192.0	100.0%	25.0% *	0	0	0	1.00	0
2008/09	132.0	100.0%	180.0	100.0%	25.0% *	0	0	0	1.00	0
2009/10	120.0	99.5%	168.0	100.0%	25.0% *	0	0	0	1.00	0
2010/11	108.0	98.5%	156.0	100.0%	25.0% *	0	0	0	1.00	0
2011/12	96.0	96.6%	144.0	100.0%	25.0% *	0	0	0	1.00	0
2012/13	84.0	94.3%	132.0	100.0%	25.0% *	0	0	0	1.00	0
2013/14	72.0	90.7%	120.0	99.5%	25.0% *	0	0	0	0.98	0
2014/15	60.0	85.5%	108.0	98.5%	25.0% *	0	0	0	0.97	0
2015/16	48.0	79.6%	96.0	96.6%	25.0% *	39,767	9,942	29,825	0.96	28,602
2016/17	36.0	66.3%	84.0	94.3%	25.0% *	308,133	77,033	231,100	0.95	218,390
2017/18	24.0	41.4%	72.0	90.7%	25.0% *	276,386	69,097	207,289	0.94	194,230
2018/19	12.0	12.8%	60.0	85.5%	25.0% *	962,658	240,665	721,993	0.93	670,731
2019/20	36.0	66.3%	48.0	79.6%	25.0% *	1,341,796	335,449	1,006,347	0.92	924,833
2020/21	24.0	41.4%	36.0	66.3%	25.0% *	1,346,815	336,704	1,010,111	0.92	931,322
2021/22	12.0	12.8%	24.0	41.4%	25.0% *	1,545,473	386,368	1,159,105	0.93	1,073,331
2022/23	0.0	0.0%	12.0	12.8%	12.8% *	1,929,724	247,005	1,682,719	0.92	1,548,101
Total						$7,750,752	$1,702,263	$6,048,489		$5,589,540

* - Limited to a maximum of 25% and a minimum of 0% per actuarial judgment.

(3) and (5) are from Exhibit GL-2 (page 1).

(7) to 2021/22 is from Exhibit GL-9. The amount for 2022/23 is from Exhibit GL-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit GL-2 (page 1).

City of Miami Beach, Florida
General Liability

Projected Losses Paid October 1, 2023 to September 30, 2024

Claim Period (1)	Months of Development 9/30/23 (2)	Percent Losses Paid (3)	Months of Development 9/30/24 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/23 to 9/30/24 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/23 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/24 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/24 (9)X(10) (11)
To 1995/96	336.0	100.0%	348.0	100.0%	25.0% *	$0	$0	$0	1.00	$0
1996/97	324.0	100.0%	336.0	100.0%	25.0% *	0	0	0	1.00	0
1997/98	312.0	100.0%	324.0	100.0%	25.0% *	0	0	0	1.00	0
1998/99	300.0	100.0%	312.0	100.0%	25.0% *	0	0	0	1.00	0
1999/00	288.0	100.0%	300.0	100.0%	25.0% *	0	0	0	1.00	0
2000/01	276.0	100.0%	288.0	100.0%	25.0% *	0	0	0	1.00	0
2001/02	264.0	100.0%	276.0	100.0%	25.0% *	0	0	0	1.00	0
2002/03	252.0	100.0%	264.0	100.0%	25.0% *	0	0	0	1.00	0
2003/04	240.0	100.0%	252.0	100.0%	25.0% *	0	0	0	1.00	0
2004/05	228.0	100.0%	240.0	100.0%	25.0% *	0	0	0	1.00	0
2005/06	216.0	100.0%	228.0	100.0%	25.0% *	0	0	0	1.00	0
2006/07	204.0	100.0%	216.0	100.0%	25.0% *	0	0	0	1.00	0
2007/08	192.0	100.0%	204.0	100.0%	25.0% *	0	0	0	1.00	0
2008/09	180.0	100.0%	192.0	100.0%	25.0% *	0	0	0	1.00	0
2009/10	168.0	100.0%	180.0	100.0%	25.0% *	0	0	0	1.00	0
2010/11	156.0	100.0%	168.0	100.0%	25.0% *	0	0	0	1.00	0
2011/12	144.0	100.0%	156.0	100.0%	25.0% *	0	0	0	1.00	0
2012/13	132.0	100.0%	144.0	100.0%	25.0% *	0	0	0	1.00	0
2013/14	120.0	99.5%	132.0	100.0%	25.0% *	0	0	0	1.00	0
2014/15	108.0	98.5%	120.0	99.5%	25.0% *	0	0	0	0.98	0
2015/16	96.0	96.6%	108.0	98.5%	25.0% *	29,825	7,456	22,369	0.97	21,653
2016/17	84.0	94.3%	96.0	96.6%	25.0% *	231,100	57,775	173,325	0.96	166,219
2017/18	72.0	90.7%	84.0	94.3%	25.0% *	207,289	51,822	155,467	0.95	146,916
2018/19	60.0	85.5%	72.0	90.7%	25.0% *	721,993	180,498	541,495	0.94	507,381
2019/20	48.0	79.6%	60.0	85.5%	25.0% *	1,006,347	251,587	754,760	0.93	701,172
2020/21	36.0	66.3%	48.0	79.6%	25.0% *	1,010,111	252,528	757,583	0.92	696,219
2021/22	24.0	41.4%	36.0	66.3%	25.0% *	1,159,105	289,776	869,329	0.92	801,521
2022/23	12.0	12.8%	24.0	41.4%	25.0% *	1,682,719	420,680	1,262,039	0.93	1,168,648
2023/24	0.0	0.0%	12.0	12.8%	12.8% *	2,046,473	261,949	1,784,524	0.92	1,641,762
Total						$8,094,962	$1,774,071	$6,320,891		$5,851,491

* - Limited to a maximum of 25% and a minimum of 0% per actuarial judgment.

(3) and (5) are from Exhibit GL-2 (page 1).

(7) to 2022/23 is from Exhibit GL-11 (page 1), (9). The amount for 2023/24 is from Exhibit GL-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit GL-2 (page 1).

City of Miami Beach, Florida
General Liability

Projected Losses Paid October 1, 2024 to September 30, 2025

Claim Period (1)	Months of Development 9/30/24 (2)	Percent Losses Paid (3)	Months of Development 9/30/25 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/24 to 9/30/25 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/24 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/25 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/25 (9)X(10) (11)
To 1995/96	348.0	100.0%	360.0	100.0%	25.0% *	$0	$0	$0	1.00	$0
1996/97	336.0	100.0%	348.0	100.0%	25.0% *	0	0	0	1.00	0
1997/98	324.0	100.0%	336.0	100.0%	25.0% *	0	0	0	1.00	0
1998/99	312.0	100.0%	324.0	100.0%	25.0% *	0	0	0	1.00	0
1999/00	300.0	100.0%	312.0	100.0%	25.0% *	0	0	0	1.00	0
2000/01	288.0	100.0%	300.0	100.0%	25.0% *	0	0	0	1.00	0
2001/02	276.0	100.0%	288.0	100.0%	25.0% *	0	0	0	1.00	0
2002/03	264.0	100.0%	276.0	100.0%	25.0% *	0	0	0	1.00	0
2003/04	252.0	100.0%	264.0	100.0%	25.0% *	0	0	0	1.00	0
2004/05	240.0	100.0%	252.0	100.0%	25.0% *	0	0	0	1.00	0
2005/06	228.0	100.0%	240.0	100.0%	25.0% *	0	0	0	1.00	0
2006/07	216.0	100.0%	228.0	100.0%	25.0% *	0	0	0	1.00	0
2007/08	204.0	100.0%	216.0	100.0%	25.0% *	0	0	0	1.00	0
2008/09	192.0	100.0%	204.0	100.0%	25.0% *	0	0	0	1.00	0
2009/10	180.0	100.0%	192.0	100.0%	25.0% *	0	0	0	1.00	0
2010/11	168.0	100.0%	180.0	100.0%	25.0% *	0	0	0	1.00	0
2011/12	156.0	100.0%	168.0	100.0%	25.0% *	0	0	0	1.00	0
2012/13	144.0	100.0%	156.0	100.0%	25.0% *	0	0	0	1.00	0
2013/14	132.0	100.0%	144.0	100.0%	25.0% *	0	0	0	1.00	0
2014/15	120.0	99.5%	132.0	100.0%	25.0% *	0	0	0	1.00	0
2015/16	108.0	98.5%	120.0	99.5%	25.0% *	22,369	5,592	16,777	0.98	16,458
2016/17	96.0	96.6%	108.0	98.5%	25.0% *	173,325	43,331	129,994	0.97	125,834
2017/18	84.0	94.3%	96.0	96.6%	25.0% *	155,467	38,867	116,600	0.96	111,819
2018/19	72.0	90.7%	84.0	94.3%	25.0% *	541,495	135,374	406,121	0.95	383,784
2019/20	60.0	85.5%	72.0	90.7%	25.0% *	754,760	188,690	566,070	0.94	530,408
2020/21	48.0	79.6%	60.0	85.5%	25.0% *	757,583	189,396	568,187	0.93	527,846
2021/22	36.0	66.3%	48.0	79.6%	25.0% *	869,329	217,332	651,997	0.92	599,185
2022/23	24.0	41.4%	36.0	66.3%	25.0% *	1,262,039	315,510	946,529	0.92	872,700
2023/24	12.0	12.8%	24.0	41.4%	25.0% *	1,784,524	446,131	1,338,393	0.93	1,239,352
2024/25	0.0	0.0%	12.0	12.8%	12.8% *	2,170,284	277,796	1,892,488	0.92	1,741,089
Total						$8,491,175	$1,858,019	$6,633,156		$6,148,475

* - Limited to a maximum of 25% and a minimum of 0% per actuarial judgment.

(3) and (5) are from Exhibit GL-2 (page 1).

(7) to 2023/24 is from Exhibit GL-11 (page 2), (9). The amount for 2024/25 is from Exhibit GL-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit GL-2 (page 1).

City of Miami Beach, Florida
General Liability

Projected Losses Paid October 1, 2025 to September 30, 2026

Claim Period (1)	Months of Development 9/30/25 (2)	Percent Losses Paid (3)	Months of Development 9/30/26 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/25 to 9/30/26 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/25 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/26 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/26 (9)X(10) (11)
To 1995/96	360.0	100.0%	372.0	100.0%	25.0% *	$0	$0	$0	1.00	$0
1996/97	348.0	100.0%	360.0	100.0%	25.0% *	0	0	0	1.00	0
1997/98	336.0	100.0%	348.0	100.0%	25.0% *	0	0	0	1.00	0
1998/99	324.0	100.0%	336.0	100.0%	25.0% *	0	0	0	1.00	0
1999/00	312.0	100.0%	324.0	100.0%	25.0% *	0	0	0	1.00	0
2000/01	300.0	100.0%	312.0	100.0%	25.0% *	0	0	0	1.00	0
2001/02	288.0	100.0%	300.0	100.0%	25.0% *	0	0	0	1.00	0
2002/03	276.0	100.0%	288.0	100.0%	25.0% *	0	0	0	1.00	0
2003/04	264.0	100.0%	276.0	100.0%	25.0% *	0	0	0	1.00	0
2004/05	252.0	100.0%	264.0	100.0%	25.0% *	0	0	0	1.00	0
2005/06	240.0	100.0%	252.0	100.0%	25.0% *	0	0	0	1.00	0
2006/07	228.0	100.0%	240.0	100.0%	25.0% *	0	0	0	1.00	0
2007/08	216.0	100.0%	228.0	100.0%	25.0% *	0	0	0	1.00	0
2008/09	204.0	100.0%	216.0	100.0%	25.0% *	0	0	0	1.00	0
2009/10	192.0	100.0%	204.0	100.0%	25.0% *	0	0	0	1.00	0
2010/11	180.0	100.0%	192.0	100.0%	25.0% *	0	0	0	1.00	0
2011/12	168.0	100.0%	180.0	100.0%	25.0% *	0	0	0	1.00	0
2012/13	156.0	100.0%	168.0	100.0%	25.0% *	0	0	0	1.00	0
2013/14	144.0	100.0%	156.0	100.0%	25.0% *	0	0	0	1.00	0
2014/15	132.0	100.0%	144.0	100.0%	25.0% *	0	0	0	1.00	0
2015/16	120.0	99.5%	132.0	100.0%	25.0% *	16,777	4,194	12,583	1.00	12,583
2016/17	108.0	98.5%	120.0	99.5%	25.0% *	129,994	32,499	97,495	0.98	95,643
2017/18	96.0	96.6%	108.0	98.5%	25.0% *	116,600	29,150	87,450	0.97	84,652
2018/19	84.0	94.3%	96.0	96.6%	25.0% *	406,121	101,530	304,591	0.96	292,103
2019/20	72.0	90.7%	84.0	94.3%	25.0% *	566,070	141,518	424,552	0.95	401,202
2020/21	60.0	85.5%	72.0	90.7%	25.0% *	568,187	142,047	426,140	0.94	399,293
2021/22	48.0	79.6%	60.0	85.5%	25.0% *	651,997	162,999	488,998	0.93	454,279
2022/23	36.0	66.3%	48.0	79.6%	25.0% *	946,529	236,632	709,897	0.92	652,395
2023/24	24.0	41.4%	36.0	66.3%	25.0% *	1,338,393	334,598	1,003,795	0.92	925,499
2024/25	12.0	12.8%	24.0	41.4%	25.0% *	1,892,488	473,122	1,419,366	0.93	1,314,333
2025/26	0.0	0.0%	12.0	12.8%	12.8% *	2,301,587	294,603	2,006,984	0.92	1,846,425
Total						$8,934,743	$1,952,892	$6,981,851		$6,478,407

* - Limited to a maximum of 25% and a minimum of 0% per actuarial judgment.

(3) and (5) are from Exhibit GL-2 (page 1).

(7) to 2024/25 is from Exhibit GL-11 (page 3), (9). The amount for 2025/26 is from Exhibit GL-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit GL-2 (page 1).

City of Miami Beach, Florida
General Liability

Projected Losses Paid October 1, 2026 to September 30, 2027

Claim Period (1)	Months of Development 9/30/26 (2)	Percent Losses Paid (3)	Months of Development 9/30/27 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/26 to 9/30/27 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/26 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/27 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/27 (9)X(10) (11)
To 1995/96	372.0	100.0%	384.0	100.0%	25.0% *	$0	$0	$0	1.00	$0
1996/97	360.0	100.0%	372.0	100.0%	25.0% *	0	0	0	1.00	0
1997/98	348.0	100.0%	360.0	100.0%	25.0% *	0	0	0	1.00	0
1998/99	336.0	100.0%	348.0	100.0%	25.0% *	0	0	0	1.00	0
1999/00	324.0	100.0%	336.0	100.0%	25.0% *	0	0	0	1.00	0
2000/01	312.0	100.0%	324.0	100.0%	25.0% *	0	0	0	1.00	0
2001/02	300.0	100.0%	312.0	100.0%	25.0% *	0	0	0	1.00	0
2002/03	288.0	100.0%	300.0	100.0%	25.0% *	0	0	0	1.00	0
2003/04	276.0	100.0%	288.0	100.0%	25.0% *	0	0	0	1.00	0
2004/05	264.0	100.0%	276.0	100.0%	25.0% *	0	0	0	1.00	0
2005/06	252.0	100.0%	264.0	100.0%	25.0% *	0	0	0	1.00	0
2006/07	240.0	100.0%	252.0	100.0%	25.0% *	0	0	0	1.00	0
2007/08	228.0	100.0%	240.0	100.0%	25.0% *	0	0	0	1.00	0
2008/09	216.0	100.0%	228.0	100.0%	25.0% *	0	0	0	1.00	0
2009/10	204.0	100.0%	216.0	100.0%	25.0% *	0	0	0	1.00	0
2010/11	192.0	100.0%	204.0	100.0%	25.0% *	0	0	0	1.00	0
2011/12	180.0	100.0%	192.0	100.0%	25.0% *	0	0	0	1.00	0
2012/13	168.0	100.0%	180.0	100.0%	25.0% *	0	0	0	1.00	0
2013/14	156.0	100.0%	168.0	100.0%	25.0% *	0	0	0	1.00	0
2014/15	144.0	100.0%	156.0	100.0%	25.0% *	0	0	0	1.00	0
2015/16	132.0	100.0%	144.0	100.0%	25.0% *	12,583	3,146	9,437	1.00	9,437
2016/17	120.0	99.5%	132.0	100.0%	25.0% *	97,495	24,374	73,121	1.00	73,121
2017/18	108.0	98.5%	120.0	99.5%	25.0% *	87,450	21,863	65,587	0.98	64,341
2018/19	96.0	96.6%	108.0	98.5%	25.0% *	304,591	76,148	228,443	0.97	221,133
2019/20	84.0	94.3%	96.0	96.6%	25.0% *	424,552	106,138	318,414	0.96	305,359
2020/21	72.0	90.7%	84.0	94.3%	25.0% *	426,140	106,535	319,605	0.95	302,027
2021/22	60.0	85.5%	72.0	90.7%	25.0% *	488,998	122,250	366,748	0.94	343,643
2022/23	48.0	79.6%	60.0	85.5%	25.0% *	709,897	177,474	532,423	0.93	494,621
2023/24	36.0	66.3%	48.0	79.6%	25.0% *	1,003,795	250,949	752,846	0.92	691,865
2024/25	24.0	41.4%	36.0	66.3%	25.0% *	1,419,366	354,842	1,064,524	0.92	981,491
2025/26	12.0	12.8%	24.0	41.4%	25.0% *	2,006,984	501,746	1,505,238	0.93	1,393,850
2026/27	0.0	0.0%	12.0	12.8%	12.8% *	2,440,833	312,427	2,128,406	0.92	1,958,134
Total						$9,422,684	$2,057,892	$7,364,792		$6,839,022

* - Limited to a maximum of 25% and a minimum of 0% per actuarial judgment.

(3) and (5) are from Exhibit GL-2 (page 1).

(7) to 2025/26 is from Exhibit GL-11 (page 4), (9). The amount for 2026/27 is from Exhibit GL-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit GL-2 (page 1).

City of Miami Beach, Florida
General Liability

Loss Rate and Severity Trend

Claim Period (1)	Legislative Trend (2022/23 = 1.000) (2)	Residual Trend (2022/23 = 1.000) (3)	Retention Index (2022/23 = 1.000) (4)	Loss Rate Trend (2022/23 = 1.000) (2)X(3)X(4) (5)	Exposure Trend (2022/23 = 1.000) (6)	Severity Trend (2022/23 = 1.000) (5)X(6) (7)
2017/18	1.000	1.051	1.000	1.051	1.104	1.160
2018/19	1.000	1.041	1.000	1.041	1.082	1.126
2019/20	1.000	1.030	1.000	1.030	1.061	1.093
2020/21	1.000	1.020	1.000	1.020	1.040	1.061
2021/22	1.000	1.010	1.000	1.010	1.020	1.030
2022/23	1.000	1.000	1.000	1.000	1.000	1.000
2023/24	1.000	0.990	1.000	0.990	0.980	0.971
2024/25	1.000	0.980	1.000	0.980	0.961	0.942
2025/26	1.000	0.971	1.000	0.971	0.942	0.915
2026/27	1.000	0.961	1.000	0.961	0.924	0.888

(2) is based on industry statistics and actuarial judgment.

(3) is based on 1% trend per actuarial judgment.

(4) is based on industry statistics and actuarial judgment.

(6) is based on 2% trend.

City of Miami Beach, Florida
General Liability

Exhibit GL-13

List of Large Claims

Claim Number (1)	Date of Loss (2)	Claim Period (3)	Assumed Maxium (4)		Limited Paid Losses 9/30/22 (5)		Limited Case Reserves 9/30/22 (6)		Limited Reported Incurred Losses 9/30/22 (7)	
CIV2018009046-1	6/24/2018	To 1995/96	$263,768	A	$201,268		$50,000		$251,268	
GL-BI2019009182-1	2/16/2019	2018/19	74,838	A	1,462		58,701	*	60,163	
GL-BI2019009133-1	9/7/2019	2018/19	94,245	A	495		75,000	*	75,495	
EPL-DIS20190001-1	10/4/2019	2019/20	1,000,000	I	0		500,000	*	500,000	
GL-BI2019009187-1	11/27/2019	2019/20	66,755	I	649		52,885	*	53,534	*
GL-BI20209202-1	1/28/2020	2019/20	250,035	I	610		199,540	*	200,150	*
GL-BI20210065-1	6/26/2021	2020/21	74,631	A	1,474		58,526	*	60,000	*
EPL-PAM20210006-1	7/26/2021	2020/21	808,173	I	11,828		398,173	*	410,000	*
PD-PD20210017-1	11/10/2021	2021/22	183,497	I	83,497	*	50,000	*	133,497	*

The claim(s) indicated by a "*" have been limited in development.

(1) through (7) were provided by the City.

City of Miami Beach, Florida
Automobile Liability

Exhibit AL-1

Data Summary as of September 30, 2022

Claim Period (1)	Specific Self-Insured Retention (2)	Aggregate Retention (3)	Months of Development 9/30/22 (4)	Vehicles (5)	Reported Claims 9/30/22 (6)	Reported Open Claims 9/30/22 (7)	Limited Paid Losses 9/30/22 (8)	Limited Case Reserves 9/30/22 (9)	Limited Reported Incurred Losses 9/30/22 (10)
1995/96	Tort cap	None	324.0	Not Provided	1,242	0	$2,524,466	$0	$2,524,466
1996/97	Tort cap	None	312.0	Not Provided	79	0	269,209	0	269,209
1997/98	Tort cap	None	300.0	Not Provided	74	0	872,488	0	872,488
1998/99	Tort cap	None	288.0	Not Provided	60	0	338,112	0	338,112
1999/00	Tort cap	None	276.0	Not Provided	80	0	267,972	0	267,972
2000/01	Tort cap	None	264.0	Not Provided	74	0	254,437	0	254,437
2001/02	Tort cap	None	252.0	Not Provided	57	0	308,602	0	308,602
2002/03	Tort cap	None	240.0	Not Provided	80	0	1,934,296	0	1,934,296
2003/04	Tort cap	None	228.0	900	102	0	401,135	0	401,135
2004/05	Tort cap	None	216.0	908	86	0	249,841	0	249,841
2005/06	Tort cap	None	204.0	917	88	0	269,250	0	269,250
2006/07	Tort cap	None	192.0	920	86	0	209,389	0	209,389
2007/08	Tort cap	None	180.0	940	76	0	279,570	0	279,570
2008/09	Tort cap	None	168.0	948	73	0	267,489	0	267,489
2009/10	Tort cap	None	156.0	984	67	0	338,692	0	338,692
2010/11	Tort cap	None	144.0	922	57	0	837,451	0	837,451
2011/12	Tort cap	None	132.0	990	50	0	363,296	0	363,296
2012/13	Tort cap	None	120.0	969	43	0	188,192	0	188,192
2013/14	Tort cap	None	108.0	1,000	43	0	161,996	0	161,996
2014/15	Tort cap	None	96.0	1,192	51	0	610,738	0	610,738
2015/16	Tort cap	None	84.0	1,039	31	0	78,295	0	78,295
2016/17	Tort cap	None	72.0	1,053	25	1	82,896	1,000	83,896
2017/18	Tort cap	None	60.0	1,186	37	0	100,725	0	100,725
2018/19	Tort cap	None	48.0	1,428	64	5	792,337	41,433	833,769
2019/20	Tort cap	None	36.0	1,505	33	5	94,920	57,312	152,232
2020/21	Tort cap	None	24.0	1,467	51	10	118,591	94,074	212,664
2021/22	Tort cap	None	12.0	1,466	40	15	55,697	144,606	200,303
Total					2,849	36	$12,270,082	$338,425	$12,608,505

Data was provided by the City.

Summary of Percent Losses Paid, Losses Reported and Claims Reported

Months of Development (1)	Percent Losses Paid (2)	Percent Losses Reported (3)	Percent Claims Reported (4)
360.0	100.0%	100.0%	100.0%
348.0	100.0%	100.0%	100.0%
336.0	100.0%	100.0%	100.0%
324.0	100.0%	100.0%	100.0%
312.0	100.0%	100.0%	100.0%
300.0	100.0%	100.0%	100.0%
288.0	100.0%	100.0%	100.0%
276.0	100.0%	100.0%	100.0%
264.0	100.0%	100.0%	100.0%
252.0	100.0%	100.0%	100.0%
240.0	100.0%	100.0%	100.0%
228.0	100.0%	100.0%	100.0%
216.0	100.0%	100.0%	100.0%
204.0	100.0%	100.0%	100.0%
192.0	100.0%	100.0%	100.0%
180.0	100.0%	100.0%	100.0%
168.0	100.0%	100.0%	100.0%
156.0	100.0%	100.0%	100.0%
144.0	100.0%	100.0%	100.0%
132.0	100.0%	100.0%	100.0%
120.0	100.0%	100.0%	100.0%
108.0	100.0%	100.0%	100.0%
96.0	100.0%	100.0%	100.0%
84.0	100.0%	100.0%	100.0%
72.0	100.0%	100.0%	100.0%
60.0	98.0%	100.0%	100.0%
48.0	93.4%	98.0%	100.0%
36.0	86.9%	93.4%	99.5%
24.0	64.4%	83.0%	97.1%
12.0	28.6%	57.2%	77.6%

(2) is from Exhibit AL-2 (page 2).

(3) is from Exhibit AL-2 (page 3).

(4) is from Exhibit AL-2 (page 4).

Historical Unlimited and Gross of Recoveries Paid Losses ($000) and Unlimited and Gross of Recoveries Paid Loss Development

I. Historical Unlimited and Gross of Recoveries Paid Losses ($000)

Claim Period	Months of Development: 12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
2002/03	$220	$487	$575	$552	$1,876	$1,851	$1,851	$1,851	$1,851	$1,852	$1,852	$1,852	$1,852	$1,852	$1,852	$1,852	$1,852	$1,852	$1,934	$1,934
2003/04	95	239	205	275	246	275	275	275	277	277	277	277	277	277	277	277	277	401	401	
2004/05	104	117	126	139	147	147	147	148	256	256	256	256	256	256	256	256	250	250		
2005/06	154	195	243	248	248	273	273	273	273	273	273	273	273	273	273	269	269			
2006/07	80	120	122	178	197	203	210	210	210	210	210	210	210	210	209	209				
2007/08	86	157	194	216	216	281	281	281	281	281	281	281	281	280	280					
2008/09	81	91	226	269	269	269	269	269	269	269	269	269	267	267						
2009/10	118	154	220	226	347	347	347	347	347	347	347	339	339							
2010/11	83	348	483	612	837	837	837	837	837	837	837	837								
2011/12	131	213	221	227	377	377	377	377	377	363	363									
2012/13	106	85	88	88	88	88	88	88	188	188										
2013/14	146	163	163	163	163	163	163	162	162											
2014/15	217	220	436	513	523	560	611	611												
2015/16	82	94	94	94	96	78	78													
2016/17	37	162	191	191	83	83														
2017/18	32	71	110	101	101															
2018/19	119	530	749	792																
2019/20	44	56	95																	
2020/21	85	119																		
2021/22	56																			

II. Unlimited and Gross of Recoveries Paid Loss Development

Claim Period	Months of Development: 12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
2002/03	2.221	1.180	0.959	3.401	0.987	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.044	1.000	
2003/04	2.522	0.856	1.342	0.895	1.116	1.002	1.000	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.448	1.000		
2004/05	1.125	1.075	1.099	1.061	1.000	1.000	1.004	1.737	1.000	0.998	1.000	1.000	1.000	1.000	1.000	0.976	1.000			
2005/06	1.266	1.246	1.023	1.000	1.101	1.000	1.000	1.000	0.999	1.000	1.000	1.000	1.000	1.000	0.986	1.000				
2006/07	1.503	1.017	1.460	1.108	1.031	1.037	1.000	0.998	1.000	1.000	1.000	1.000	1.000	0.997	1.000					
2007/08	1.836	1.237	1.112	1.000	1.303	1.000	0.999	1.000	1.000	1.000	1.000	1.000	0.995	1.000						
2008/09	1.124	2.473	1.188	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	0.994	1.000							
2009/10	1.302	1.432	1.024	1.536	1.001	1.000	1.000	1.000	1.000	1.000	0.976	1.000								
2010/11	4.190	1.390	1.266	1.368	1.000	1.000	1.000	1.000	1.000	1.001	1.000									
2011/12	1.626	1.035	1.027	1.661	1.000	1.000	1.000	1.000	0.964	1.000										
2012/13	0.807	1.033	1.000	1.000	1.000	1.000	1.000	2.139	1.000											
2013/14	1.119	1.000	1.000	1.000	1.000	1.000	0.994	1.000												
2014/15	1.014	1.981	1.178	1.019	1.071	1.090	1.000													
2015/16	1.147	1.000	1.000	1.023	0.814	1.000														
2016/17	4.375	1.175	1.000	0.435	1.000															
2017/18	2.198	1.560	0.913	1.000																
2018/19	4.442	1.412	1.058																	
2019/20	1.261	1.699																		
2020/21	1.392																			
2021/22																				
Average																				
All	1.919	1.322	1.097	1.219	1.028	1.009	1.000	1.157	0.997	1.000	0.997	0.999	0.999	1.000	0.997	0.994	1.149	1.022	1.000	
Wtd 3	2.831	1.452	1.032	0.726	1.027	1.063	0.999	1.160	0.990	1.000	0.994	0.998	0.998	0.999	0.995	0.992	1.052			
Last 3	2.365	1.557	0.990	0.819	0.962	1.030	0.998	1.380	0.988	1.000	0.992	0.998	0.998	0.999	0.995	0.992	1.149			
Last 5	2.655	1.382	1.019	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
x-hi,low																				
Previous	2.500	1.300	1.075	1.050	1.020	1.000	1.000	1.000	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	2.250	1.350	1.075	1.050	1.020	1.000	1.000	1.000	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	3.497	1.554	1.151	1.071	1.020	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Percent Losses Paid	28.6%	64.4%	86.9%	93.4%	98.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Section I was provided by the City and previous actuarial studies. Shaded area is the old database.

City of Miami Beach, Florida
Automobile Liability

Historical Unlimited and Gross of Recoveries Reported Incurred Losses ($000) and Unlimited and Gross of Recoveries Reported Incurred Loss Development

I. Historical Unlimited and Gross of Recoveries Reported Incurred Losses ($000)

Claim Period	Months of Development: 12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
2002/03	$449	$2,186	$1,883	$1,965	$1,881	$1,851	$1,851	$1,852	$1,852	$1,853	$1,853	$1,853	$1,853	$1,852	$1,852	$1,852	$1,852	$1,852	$1,934	$1,934
2003/04	226	318	268	388	258	285	285	285	277	277	277	277	277	277	277	277	277	401	401	
2004/05	228	306	301	296	275	257	257	258	291	291	291	256	256	256	256	256	250	250		
2005/06	304	265	274	258	256	281	281	281	281	281	273	273	273	273	273	269	269			
2006/07	178	201	174	220	224	215	210	210	210	210	210	210	210	210	209	209				
2007/08	152	212	228	245	301	301	301	301	281	281	281	281	281	280	280					
2008/09	196	172	254	279	279	279	279	269	269	269	269	269	267	267						
2009/10	209	238	267	290	471	465	347	347	347	347	347	339	339							
2010/11	544	743	797	963	871	837	837	837	837	837	837	837								
2011/12	203	277	292	280	377	377	377	377	377	363	363									
2012/13	160	103	154	93	93	93	93	93	188	188										
2013/14	177	208	170	179	177	177	174	162	162											
2014/15	384	350	498	581	573	589	611	611												
2015/16	107	105	105	105	107	78	78													
2016/17	61	177	191	191	83	84														
2017/18	62	97	115	106	101															
2018/19	452	677	798	834																
2019/20	103	151	152																	
2020/21	168	213																		
2021/22	200																			

II. Unlimited and Gross of Recoveries Reported Incurred Loss Development

Claim Period	Months of Development: 12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
2002/03	4.866	0.861	1.043	0.957	0.984	1.000	1.001	1.000	1.000	1.000	1.000	1.000	0.999	1.000	1.000	1.000	1.000	1.044	1.000	
2003/04	1.412	0.842	1.447	0.665	1.104	1.002	1.000	0.972	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.448	1.000		
2004/05	1.341	0.985	0.985	0.929	0.934	1.000	1.002	1.131	1.000	0.998	0.880	1.000	1.000	1.000	1.000	0.976	1.000			
2005/06	0.871	1.036	0.942	0.990	1.098	1.000	1.000	1.000	1.001	0.972	1.000	1.000	1.000	1.000	0.986	1.000				
2006/07	1.128	0.866	1.265	1.019	0.962	0.977	1.000	0.998	1.000	1.000	1.000	1.000	1.000	0.997	1.000					
2007/08	1.398	1.076	1.073	1.230	1.001	1.000	0.999	0.934	1.000	1.000	1.000	1.000	0.995	1.000						
2008/09	0.878	1.478	1.097	1.000	1.000	1.001	0.964	1.000	1.000	1.000	1.000	0.994	1.000							
2009/10	1.141	1.120	1.085	1.626	0.987	0.746	1.000	1.000	1.000	1.000	0.976	1.000								
2010/11	1.366	1.072	1.209	0.904	0.961	1.000	1.000	1.000	1.000	1.001	1.000									
2011/12	1.361	1.054	0.959	1.346	1.000	1.000	1.000	1.000	0.964	1.000										
2012/13	0.640	1.502	0.604	1.001	1.000	1.000	0.999	2.024	1.000											
2013/14	1.174	0.817	1.056	0.989	1.000	0.979	0.932	1.000												
2014/15	0.911	1.423	1.167	0.986	1.029	1.037	1.000													
2015/16	0.981	1.000	1.000	1.021	0.730	1.000														
2016/17	2.909	1.076	1.000	0.435	1.012															
2017/18	1.565	1.191	0.916	0.953																
2018/19	1.500	1.177	1.045																	
2019/20	1.471	1.007																		
2020/21	1.263																			
2021/22																				
Average																				
All	1.483	1.088	1.052	1.003	0.987	0.982	0.992	1.088	0.997	0.997	0.984	0.999	0.999	1.000	0.997	0.994	1.149	1.022	1.000	
Wtd 3	1.441	1.151	1.024	0.725	0.985	1.021	0.986	1.151	0.990	1.000	0.994	0.998	0.998	0.999	0.995	0.992	1.052			
Last 3	1.412	1.125	0.987	0.803	0.924	1.005	0.977	1.341	0.988	1.000	0.992	0.998	0.998	0.999	0.995	0.992	1.149			
Last 5	1.512	1.087	1.015	0.976	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
x-hi,low																				
Previous	1.500	1.150	1.050	1.020	1.000	1.000	1.000	1.000	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	1.450	1.125	1.050	1.020	1.000	1.000	1.000	1.000	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	1.747	1.205	1.071	1.020	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Percent Losses Reported	57.2%	83.0%	93.4%	98.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Section I was provided by the City and previous actuarial studies. Shaded area is the old database.

City of Miami Beach, Florida
Automobile Liability

Historical Reported Claims and Reported Claim Development

I. Historical Reported Claims

Claim Period	Months of Development: 12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
2002/03																			80	80
2003/04																		102	102	
2004/05																	86	86		
2005/06																88	88			
2006/07															86	86				
2007/08														76	76					
2008/09													73	73						
2009/10												67	67							
2010/11											57	57								
2011/12										50	50									
2012/13									43	43										
2013/14								43	43											
2014/15							51	51												
2015/16						31	31													
2016/17					25	25														
2017/18				35	37															
2018/19			64	64																
2019/20		30	33																	
2020/21	39	51																		
2021/22	40																			

II. Reported Claim Development

Claim Period	Months of Development: 12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
2002/03																			1.000	
2003/04																		1.000		
2004/05																	1.000			
2005/06																1.000				
2006/07															1.000					
2007/08														1.000						
2008/09													1.000							
2009/10												1.000								
2010/11											1.000									
2011/12										1.000										
2012/13									1.000											
2013/14								1.000												
2014/15							1.000													
2015/16						1.000														
2016/17					1.000															
2017/18				1.057																
2018/19			1.000																	
2019/20		1.100																		
2020/21	1.308																			
2021/22																				
Average																				
All	1.308	1.100	1.000	1.057	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Wtd 3																				
Last 3																				
Last 5																				
x-hi,low																				
Previous	1.250	1.025	1.005	1.000	1.000	1.000	1.000	1.000	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	1.250	1.025	1.005	1.000	1.000	1.000	1.000	1.000	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	1.288	1.030	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Percent Claims Reported	77.6%	97.1%	99.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Section I was provided by the City and previous actuarial studies. Shaded area is the old database.

Developed Limited Paid Losses, Reported Incurred Losses and Case Reserves

Claim Period (1)	Months of Development 9/30/22 (2)	Percent Losses Paid (3)	Percent Losses Reported (4)	Percent Losses Reserved 9/30/22 ((4)-(3))/ (100.0%-(3)) (5)	Limited Paid Losses 9/30/22 (6)	Limited Case Reserves 9/30/22 (7)	Limited Reported Incurred Losses 9/30/22 (8)	Developed Limited Paid Losses (6)/(3) (9)	Developed Limited Reported Incurred Losses (8)/(4) (10)	Developed Limited Case Reserves (6)+(7)/(5) (11)
1995/96	324.0	100.0%	100.0%	100.0%	$2,524,466	$0	$2,524,466	$2,524,466	$2,524,466	$2,524,466
1996/97	312.0	100.0%	100.0%	100.0%	269,209	0	269,209	269,209	269,209	269,209
1997/98	300.0	100.0%	100.0%	100.0%	872,488	0	872,488	872,488	872,488	872,488
1998/99	288.0	100.0%	100.0%	100.0%	338,112	0	338,112	338,112	338,112	338,112
1999/00	276.0	100.0%	100.0%	100.0%	267,972	0	267,972	267,972	267,972	267,972
2000/01	264.0	100.0%	100.0%	100.0%	254,437	0	254,437	254,437	254,437	254,437
2001/02	252.0	100.0%	100.0%	100.0%	308,602	0	308,602	308,602	308,602	308,602
2002/03	240.0	100.0%	100.0%	100.0%	1,934,296	0	1,934,296	1,934,296	1,934,296	1,934,296
2003/04	228.0	100.0%	100.0%	100.0%	401,135	0	401,135	401,135	401,135	401,135
2004/05	216.0	100.0%	100.0%	100.0%	249,841	0	249,841	249,841	249,841	249,841
2005/06	204.0	100.0%	100.0%	100.0%	269,250	0	269,250	269,250	269,250	269,250
2006/07	192.0	100.0%	100.0%	100.0%	209,389	0	209,389	209,389	209,389	209,389
2007/08	180.0	100.0%	100.0%	100.0%	279,570	0	279,570	279,570	279,570	279,570
2008/09	168.0	100.0%	100.0%	100.0%	267,489	0	267,489	267,489	267,489	267,489
2009/10	156.0	100.0%	100.0%	100.0%	338,692	0	338,692	338,692	338,692	338,692
2010/11	144.0	100.0%	100.0%	100.0%	837,451	0	837,451	837,451	837,451	837,451
2011/12	132.0	100.0%	100.0%	100.0%	363,296	0	363,296	363,296	363,296	363,296
2012/13	120.0	100.0%	100.0%	100.0%	188,192	0	188,192	188,192	188,192	188,192
2013/14	108.0	100.0%	100.0%	100.0%	161,996	0	161,996	161,996	161,996	161,996
2014/15	96.0	100.0%	100.0%	100.0%	610,738	0	610,738	610,738	610,738	610,738
2015/16	84.0	100.0%	100.0%	100.0%	78,295	0	78,295	78,295	78,295	78,295
2016/17	72.0	100.0%	100.0%	100.0%	82,896	1,000	83,896	82,896	83,896	83,896
2017/18	60.0	98.0%	100.0%	100.0%	100,725	0	100,725	102,781	100,725	100,725
2018/19	48.0	93.4%	98.0%	69.7%	792,337	41,432	833,769	848,327	850,785	851,783
2019/20	36.0	86.9%	93.4%	49.6%	94,920	57,312	152,232	109,229	162,989	210,426
2020/21	24.0	64.4%	83.0%	52.2%	118,591	94,073	212,664	184,148	256,222	298,645
2021/22	12.0	28.6%	57.2%	40.1%	55,697	144,606	200,303	194,745	350,180	416,706

(3) and (4) are based on Exhibit AL-2 (page 1).

(6), (7) and (8) are from Exhibit AL-1.

City of Miami Beach, Florida
Automobile Liability

Preliminary Projected Ultimate Limited Losses to 2021/22

Claim Period (1)	Developed Limited Paid Losses (2)	Developed Limited Reported Incurred Losses (3)	Developed Limited Case Reserves (4)	Preliminary Projected Ultimate Limited Losses (5)
1995/96	$2,524,466	$2,524,466	$2,524,466	$2,524,466
1996/97	269,209	269,209	269,209	269,209
1997/98	872,488	872,488	872,488	872,488
1998/99	338,112	338,112	338,112	338,112
1999/00	267,972	267,972	267,972	267,972
2000/01	254,437	254,437	254,437	254,437
2001/02	308,602	308,602	308,602	308,602
2002/03	1,934,296	1,934,296	1,934,296	1,934,296
2003/04	401,135	401,135	401,135	401,135
2004/05	249,841	249,841	249,841	249,841
2005/06	269,250	269,250	269,250	269,250
2006/07	209,389	209,389	209,389	209,389
2007/08	279,570	279,570	279,570	279,570
2008/09	267,489	267,489	267,489	267,489
2009/10	338,692	338,692	338,692	338,692
2010/11	837,451	837,451	837,451	837,451
2011/12	363,296	363,296	363,296	363,296
2012/13	188,192	188,192	188,192	188,192
2013/14	161,996	161,996	161,996	161,996
2014/15	610,738	610,738	610,738	610,738
2015/16	78,295	78,295	78,295	78,295
2016/17	82,896	83,896	83,896	93,896
2017/18	102,781	100,725	100,725	100,725
2018/19	848,327	850,785	851,783	883,769
2019/20	109,229	162,989	210,426	202,232
2020/21	184,148	256,222	298,645	312,664
2021/22	194,745	350,180	416,706	383,443

(2), (3) and (4) are from Exhibit AL-3.

(5) is based on (2) to (4), weighted as follows:

Subject to a minimum of Exhibit AL-1, (10) and minimum 50% of case reserves or $10,000 per open claim as IBNR for claim periods with open claims.

Claim Period	Developed Limited Paid Losses	Developed Limited Reported Incurred Losses	Developed Limited Case Reserves
to 2007/08	0.0%	0.0%	100.0%
2008/09	0.0%	0.0%	100.0%
2009/10	0.0%	0.0%	100.0%
2010/11	0.0%	0.0%	100.0%
2011/12	0.0%	0.0%	100.0%
2012/13	0.0%	10.0%	90.0%
2013/14	0.0%	20.0%	80.0%
2014/15	0.0%	30.0%	70.0%
2015/16	0.0%	40.0%	60.0%
2016/17	0.0%	50.0%	50.0%
2017/18	0.0%	50.0%	50.0%
2018/19	0.0%	50.0%	50.0%
2019/20	0.0%	50.0%	50.0%
2020/21	0.0%	50.0%	50.0%
2021/22	0.0%	50.0%	50.0%

City of Miami Beach, Florida
Automobile Liability

Bornhuetter - Ferguson Analysis

I. A-priori Loss Rate

Claim Period (1)	Preliminary Projected Ultimate Limited Losses (2)	Vehicles (3)	Limited Loss Rate per Vehicle (2)/(3) (4)	Loss Rate Trend (2022/23 = 1.000) (5)	Trended Limited Loss Rate per Vehicle (4)X(5) (6)	Projected A-priori Loss Rate per Vehicle (7)/(5) (8)
2017/18	$100,725	1,186	$84.93	1.276	$108.39	$239.10
2018/19	883,769	1,428	618.89	1.216	752.26	251.06
2019/20	202,232	1,505	134.37	1.158	155.55	263.61
2020/21	312,664	1,467	213.13	1.103	234.98	276.79
2021/22	383,443	1,466	261.56	1.050	274.64	290.63

(7) Projected 2022/23 a-priori loss rate per Vehicle $305.16

II. Bornhuetter - Ferguson Analysis Based on Limited Paid Losses

Claim Period (1)	Limited Paid Losses 9/30/22 (2)	Percent Losses Paid (3)	Projected A-priori Loss Rate per Vehicle (4)	Vehicles (5)	B-F Unpaid Losses (100.0%-(3)) X(4)X(5) (6)	B-F Ultimate Limited Paid Losses (2)+(6) (7)
2017/18	$100,725	98.0%	$239.10	1,186	$5,672	$106,397
2018/19	792,337	93.4%	251.06	1,428	23,662	815,999
2019/20	94,920	86.9%	263.61	1,505	51,972	146,892
2020/21	118,591	64.4%	276.79	1,467	144,555	263,146
2021/22	55,697	28.6%	290.63	1,466	304,212	359,909

III. Bornhuetter - Ferguson Analysis Based on Limited Reported Incurred Losses

Claim Period (1)	Limited Reported Incurred Losses 9/30/22 (2)	Percent Losses Reported (3)	Projected A-priori Loss Rate per Vehicle (4)	Vehicles (5)	B-F Unreported Losses (100.0%-(3)) X(4)X(5) (6)	B-F Ultimate Limited Reported Losses (2)+(6) (7)
2017/18	$100,725	100.0%	$239.10	1,186	$0	$100,725
2018/19	833,769	98.0%	251.06	1,428	7,170	840,939
2019/20	152,232	93.4%	263.61	1,505	26,185	178,417
2020/21	212,664	83.0%	276.79	1,467	69,029	281,693
2021/22	200,303	57.2%	290.63	1,466	182,357	382,660

Section I, (2) is from Exhibit AL-4.

Section I, (3), Section II, (5) and Section III, (5) were provided by the City.

Section I, (5) is from Exhibit AL-12.

Section I, (7) is based on Section I, (6) and the following weights:

Claim Period	Weight
2017/18	20.0%
2018/19	20.0%
2019/20	20.0%
2020/21	20.0%
2021/22	20.0%

Sections II and III, (2) are from Exhibit AL-1.

Sections II and III, (3) are based on Exhibit AL-2 (page 1).

Sections II and III, (4) are from Section I, (8).

City of Miami Beach, Florida
Automobile Liability

Frequency Times Severity Analysis

I. Projected Ultimate Claims

Claim Period (1)	Months of Development 9/30/22 (2)	Reported Claims 9/30/22 (3)	Percent Claims Reported (4)	Projected Ultimate Claims (3)/(4) (5)	Reported Open Claims 9/30/22 (6)	Number of IBNR Claims (5)-(3) (7)	Open Claims 9/30/22 (6)+(7) (8)
2017/18	60.0	37	100.0%	37	0	0	0
2018/19	48.0	64	100.0%	64	5	0	5
2019/20	36.0	33	99.5%	33	5	0	5
2020/21	24.0	51	97.1%	53	10	2	12
2021/22	12.0	40	77.6%	52	15	12	27

II. Frequency Times Severity

Claim Period (1)	Preliminary Projected Ultimate Limited Losses (2)	Projected Ultimate Claims (3)	Average Severity (2)/(3) (4)	Severity Trend (2022/23 = 1.000) (5)	Trended Average Claim Severity (4)X(5) (6)	De-Trended Projected 2022/23 Average Claim Severity (7)/(5) (8)	Frequency Times Severity (3)X(8) (9)
2017/18	$100,725	37	$2,722	1.276	$3,474	$6,519	$241,201
2018/19	883,769	64	13,809	1.216	16,785	6,845	438,073
2019/20	202,232	33	6,128	1.158	7,094	7,187	237,175
2020/21	312,664	53	5,899	1.103	6,504	7,546	399,964
2021/22	383,443	52	7,374	1.050	7,743	7,924	412,038
	(7) Projected 2022/23 average claim severity				$8,320		

Section I, (3) and (6) are from Exhibit AL-1.

Section I, (4) is from Exhibit AL-2.

Section II, (2) is from Exhibit AL-4.

Section II, (3) is from Section I, (5).

Section II, (5) is from Exhibit AL-12.

Section II, (7) is based on (6) and the following weights:

Claim Period	Weight
2017/18	20.0%
2018/19	20.0%
2019/20	20.0%
2020/21	20.0%
2021/22	20.0%

Projected Ultimate Limited Losses to 2021/22

Claim Period (1)	Developed Limited Paid Losses (2)	Developed Limited Reported Incurred Losses (3)	Developed Limited Case Reserves (4)	B-F Paid Method Ultimate Losses (5)	B-F Reported Method Ultimate Losses (6)	Frequency Times Severity (7)	Previous Projected Ultimate Limited Losses (9/30/21) (8)	Projected Ultimate Limited Losses (9)	Change in Projected Ultimate Limited Losses (9)-(8) (10)
1995/96	$2,524,466	$2,524,466	$2,524,466				$2,524,466	$2,524,466	$0
1996/97	269,209	269,209	269,209				269,209	269,209	0
1997/98	872,488	872,488	872,488				872,488	872,488	0
1998/99	338,112	338,112	338,112				338,112	338,112	0
1999/00	267,972	267,972	267,972				267,972	267,972	0
2000/01	254,437	254,437	254,437				254,437	254,437	0
2001/02	308,602	308,602	308,602				308,602	308,602	0
2002/03	1,934,296	1,934,296	1,934,296				1,934,296	1,934,296	0
2003/04	401,135	401,135	401,135				401,135	401,135	0
2004/05	249,841	249,841	249,841				249,841	249,841	0
2005/06	269,250	269,250	269,250				269,250	269,250	0
2006/07	209,389	209,389	209,389				209,389	209,389	0
2007/08	279,570	279,570	279,570				279,570	279,570	0
2008/09	267,489	267,489	267,489				267,489	267,489	0
2009/10	338,692	338,692	338,692				338,692	338,692	0
2010/11	837,451	837,451	837,451				837,451	837,451	0
2011/12	363,296	363,296	363,296				363,296	363,296	0
2012/13	188,192	188,192	188,192				188,192	188,192	0
2013/14	161,996	161,996	161,996				161,996	161,996	0
2014/15	610,738	610,738	610,738				610,738	610,738	0
2015/16	78,295	78,295	78,295				78,295	78,295	0
2016/17	82,896	83,896	83,896				82,896	93,896	11,000
2017/18	102,781	100,725	100,725	106,397	100,725	241,201	110,725	100,725	(10,000)
2018/19	848,327	850,785	851,783	815,999	840,939	438,073	870,032	883,769	13,737
2019/20	109,229	162,989	210,426	146,892	178,417	237,175	213,129	202,232	(10,897)
2020/21	184,148	256,222	298,645	263,146	281,693	399,964	319,137	312,664	(6,473)
2021/22	194,745	350,180	416,706	359,909	382,660	412,038	391,330	377,364	(13,966)

(2), (3) and (4) are from Exhibit AL-3.

(5) and (6) are from Exhibit AL-5.

(7) is from Exhibit AL-6.

(8) is from the previous study.

(9) is based on (2) to (8), weighted as follows:

Subject to a minimum of Exhibit AL-1, (10) and minimum 50% of case reserves or $10,000 per open claim as IBNR for claim periods with open claims.

Claim Period	Developed Limited Paid Losses	Developed Limited Reported Incurred Losses	Developed Limited Case Reserves	B-F Paid Method Ultimate Losses	B-F Reported Method Ultimate Losses	Frequency Times Severity	Previous Projected Ultimate Limited Losses
to 2007/08	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
2008/09	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
2009/10	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
2010/11	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
2011/12	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
2012/13	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
2013/14	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
2014/15	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
2015/16	0.0%	10.0%	90.0%	0.0%	0.0%	0.0%	0.0%
2016/17	0.0%	20.0%	80.0%	0.0%	0.0%	0.0%	0.0%
2017/18	0.0%	30.0%	70.0%	0.0%	0.0%	0.0%	0.0%
2018/19	0.0%	40.0%	60.0%	0.0%	0.0%	0.0%	0.0%
2019/20	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%
2020/21	0.0%	40.0%	40.0%	10.0%	10.0%	0.0%	0.0%
2021/22	0.0%	25.0%	25.0%	25.0%	25.0%	0.0%	0.0%
Total Last 5	$1,439,228	$1,720,901	$1,878,285	$1,692,343	$1,784,434	$1,728,451	$1,904,354

Average projected ultimate limited losses total last 5, excluding previous: $1,707,274
Projected ultimate limited losses total last 5 $1,876,754

City of Miami Beach, Florida
Automobile Liability

Projected Ultimate Limited Losses for 2022/23 and Subsequent

Claim Period (1)	Projected Ultimate Limited Losses (2)	Vehicles (3)	Limited Loss Rate per Vehicle (2)/(3) (4)	Loss Rate Trend (2022/23 = 1.000) (5)	Trended Limited Loss Rate per Vehicle (4)X(5) (6)
2017/18	$100,725	1,186	$84.93	1.276	$108.39
2018/19	883,769	1,428	618.89	1.216	752.26
2019/20	202,232	1,505	134.37	1.158	155.55
2020/21	312,664	1,467	213.13	1.103	234.98
2021/22	377,364	1,466	257.41	1.050	270.28
Total	$1,876,754	7,052	$266.13		$304.29

Claim Period (1)	Projected Limited Loss Rate per Vehicle (7)	Projected Vehicles (8)	Projected Ultimate Limited Losses (7)X(8) (9)	Present Value Factor (10)	Present Value of Projected Limited Loss Rate per Vehicle (7)X(10) (11)	Present Value of Projected Ultimate Limited Losses (8)X(11) (12)
2022/23	$304.29	1,481	$450,554	0.93	$283.91	$420,367
2023/24	319.51	1,495	477,813	0.93	298.10	445,799
2024/25	335.48	1,510	506,721	0.93	313.01	472,770
2025/26	352.26	1,526	537,377	0.93	328.66	501,373
2026/27	369.87	1,541	569,888	0.93	345.09	531,706

(2) is from Exhibit AL-7.

(3) was provided by the City.

(5) is from Exhibit AL-12.

(7) for 2022/23 is based on (6) and the following weights:

Claim Period	Weight
2017/18	20.0%
2018/19	20.0%
2019/20	20.0%
2020/21	20.0%
2021/22	20.0%

(7) for 2023/24 and subsequent are based on 2022/23 plus the trend in Exhibit AL-12.

(8) is based on (3) for 2021/22 and a 1% trend.

(10) is based on a 4% interest rate and the payout pattern in Exhibit AL-2 (page 1).

City of Miami Beach, Florida
Automobile Liability

Estimated Outstanding Losses as of September 30, 2022

Claim Period (1)	Limited Paid Losses 9/30/22 (2)	Limited Case Reserves 9/30/22 (3)	Limited Reported Incurred Losses 9/30/22 (4)	Projected Ultimate Limited Losses (5)	Estimated Outstanding Losses 9/30/22 (5)-(2) (6)	Estimated IBNR 9/30/22 (6)-(3) (7)
1995/96	$2,524,466	$0	$2,524,466	$2,524,466	$0	$0
1996/97	269,209	0	269,209	269,209	0	0
1997/98	872,488	0	872,488	872,488	0	0
1998/99	338,112	0	338,112	338,112	0	0
1999/00	267,972	0	267,972	267,972	0	0
2000/01	254,437	0	254,437	254,437	0	0
2001/02	308,602	0	308,602	308,602	0	0
2002/03	1,934,296	0	1,934,296	1,934,296	0	0
2003/04	401,135	0	401,135	401,135	0	0
2004/05	249,841	0	249,841	249,841	0	0
2005/06	269,250	0	269,250	269,250	0	0
2006/07	209,389	0	209,389	209,389	0	0
2007/08	279,570	0	279,570	279,570	0	0
2008/09	267,489	0	267,489	267,489	0	0
2009/10	338,692	0	338,692	338,692	0	0
2010/11	837,451	0	837,451	837,451	0	0
2011/12	363,296	0	363,296	363,296	0	0
2012/13	188,192	0	188,192	188,192	0	0
2013/14	161,996	0	161,996	161,996	0	0
2014/15	610,738	0	610,738	610,738	0	0
2015/16	78,295	0	78,295	78,295	0	0
2016/17	82,896	1,000	83,896	93,896	11,000	10,000
2017/18	100,725	0	100,725	100,725	0	0
2018/19	792,337	41,433	833,769	883,769	91,432	49,999
2019/20	94,920	57,312	152,232	202,232	107,312	50,000
2020/21	118,591	94,074	212,664	312,664	194,073	99,999
2021/22	55,697	144,606	200,303	377,364	321,667	177,061
Total	$12,270,082	$338,425	$12,608,505	$12,995,566	$725,484	$387,059

(2), (3) and (4) are from Exhibit AL-1, and net of the specific self insured retention and aggregate retention.

(5) is from Exhibit AL-7.

City of Miami Beach, Florida
Automobile Liability

Present Value of Estimated Outstanding Losses as of December 31, 2021

Claim Period (1)	Estimated Outstanding Losses 9/30/22 (2)	Present Value Factor (3)	Present Value of Estimated Outstanding Losses 9/30/22 (2)X(3) (4)	Anticipated Future Investment Income (2)-(4) (5)
1995/96	$0	1.00	$0	$0
1996/97	0	1.00	0	0
1997/98	0	1.00	0	0
1998/99	0	1.00	0	0
1999/00	0	1.00	0	0
2000/01	0	1.00	0	0
2001/02	0	1.00	0	0
2002/03	0	1.00	0	0
2003/04	0	1.00	0	0
2004/05	0	1.00	0	0
2005/06	0	1.00	0	0
2006/07	0	1.00	0	0
2007/08	0	1.00	0	0
2008/09	0	1.00	0	0
2009/10	0	1.00	0	0
2010/11	0	1.00	0	0
2011/12	0	1.00	0	0
2012/13	0	1.00	0	0
2013/14	0	1.00	0	0
2014/15	0	1.00	0	0
2015/16	0	1.00	0	0
2016/17	11,000	1.00	11,000	0
2017/18	0	0.98	0	0
2018/19	91,432	0.97	88,598	2,834
2019/20	107,312	0.96	102,590	4,722
2020/21	194,073	0.96	185,922	8,151
2021/22	321,667	0.95	305,905	15,762
Total	$725,484		$694,015	$31,469

(2) is from Exhibit AL-9.

(3) is based on a 4% interest rate and the payout pattern in Exhibit AL-2 (page 1).

City of Miami Beach, Florida
Automobile Liability

Projected Losses Paid October 1, 2022 to September 30, 2023

Claim Period (1)	Months of Development 9/30/22 (2)	Percent Losses Paid (3)	Months of Development 9/30/23 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/22 to 9/30/23 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/22 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/23 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/23 (9)X(10) (11)
1995/96	324.0	100.0%	336.0	100.0%	40.0% *	$0	$0	$0	1.00	$0
1996/97	312.0	100.0%	324.0	100.0%	40.0% *	0	0	0	1.00	0
1997/98	300.0	100.0%	312.0	100.0%	40.0% *	0	0	0	1.00	0
1998/99	288.0	100.0%	300.0	100.0%	40.0% *	0	0	0	1.00	0
1999/00	276.0	100.0%	288.0	100.0%	40.0% *	0	0	0	1.00	0
2000/01	264.0	100.0%	276.0	100.0%	40.0% *	0	0	0	1.00	0
2001/02	252.0	100.0%	264.0	100.0%	40.0% *	0	0	0	1.00	0
2002/03	240.0	100.0%	252.0	100.0%	40.0% *	0	0	0	1.00	0
2003/04	228.0	100.0%	240.0	100.0%	40.0% *	0	0	0	1.00	0
2004/05	216.0	100.0%	228.0	100.0%	40.0% *	0	0	0	1.00	0
2005/06	204.0	100.0%	216.0	100.0%	40.0% *	0	0	0	1.00	0
2006/07	192.0	100.0%	204.0	100.0%	40.0% *	0	0	0	1.00	0
2007/08	180.0	100.0%	192.0	100.0%	40.0% *	0	0	0	1.00	0
2008/09	168.0	100.0%	180.0	100.0%	40.0% *	0	0	0	1.00	0
2009/10	156.0	100.0%	168.0	100.0%	40.0% *	0	0	0	1.00	0
2010/11	144.0	100.0%	156.0	100.0%	40.0% *	0	0	0	1.00	0
2011/12	132.0	100.0%	144.0	100.0%	40.0% *	0	0	0	1.00	0
2012/13	120.0	100.0%	132.0	100.0%	40.0% *	0	0	0	1.00	0
2013/14	108.0	100.0%	120.0	100.0%	40.0% *	0	0	0	1.00	0
2014/15	96.0	100.0%	108.0	100.0%	40.0% *	0	0	0	1.00	0
2015/16	84.0	100.0%	96.0	100.0%	40.0% *	0	0	0	1.00	0
2016/17	72.0	100.0%	84.0	100.0%	40.0% *	11,000	4,400	6,600	1.00	6,600
2017/18	60.0	98.0%	72.0	100.0%	40.0% *	0	0	0	1.00	0
2018/19	48.0	93.4%	60.0	98.0%	40.0% *	91,432	36,573	54,859	0.98	53,817
2019/20	36.0	86.9%	48.0	93.4%	40.0% *	107,312	42,925	64,387	0.97	62,391
2020/21	24.0	64.4%	36.0	86.9%	40.0% *	194,073	77,629	116,444	0.96	111,320
2021/22	12.0	28.6%	24.0	64.4%	40.0% *	321,667	128,667	193,000	0.96	184,894
2022/23	0.0	0.0%	12.0	28.6%	28.6% *	450,554	128,858	321,696	0.95	305,933
Total						$1,176,038	$419,052	$756,986		$724,955

* - Limited to a maximum of 40% per actuarial judgment.

(3) and (5) are from Exhibit AL-2 (page 1).

(7) to 2021/22 is from Exhibit AL-9. The amount for 2022/23 is from Exhibit AL-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit AL-2 (page 1).

City of Miami Beach, Florida
Automobile Liability

Projected Losses Paid October 1, 2023 to September 30, 2024

Claim Period (1)	Months of Development 9/30/23 (2)	Percent Losses Paid (3)	Months of Development 9/30/24 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/23 to 9/30/24 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/23 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/24 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/24 (9)X(10) (11)
1995/96	336.0	100.0%	348.0	100.0%	40.0% *	$0	$0	$0	1.00	$0
1996/97	324.0	100.0%	336.0	100.0%	40.0% *	0	0	0	1.00	0
1997/98	312.0	100.0%	324.0	100.0%	40.0% *	0	0	0	1.00	0
1998/99	300.0	100.0%	312.0	100.0%	40.0% *	0	0	0	1.00	0
1999/00	288.0	100.0%	300.0	100.0%	40.0% *	0	0	0	1.00	0
2000/01	276.0	100.0%	288.0	100.0%	40.0% *	0	0	0	1.00	0
2001/02	264.0	100.0%	276.0	100.0%	40.0% *	0	0	0	1.00	0
2002/03	252.0	100.0%	264.0	100.0%	40.0% *	0	0	0	1.00	0
2003/04	240.0	100.0%	252.0	100.0%	40.0% *	0	0	0	1.00	0
2004/05	228.0	100.0%	240.0	100.0%	40.0% *	0	0	0	1.00	0
2005/06	216.0	100.0%	228.0	100.0%	40.0% *	0	0	0	1.00	0
2006/07	204.0	100.0%	216.0	100.0%	40.0% *	0	0	0	1.00	0
2007/08	192.0	100.0%	204.0	100.0%	40.0% *	0	0	0	1.00	0
2008/09	180.0	100.0%	192.0	100.0%	40.0% *	0	0	0	1.00	0
2009/10	168.0	100.0%	180.0	100.0%	40.0% *	0	0	0	1.00	0
2010/11	156.0	100.0%	168.0	100.0%	40.0% *	0	0	0	1.00	0
2011/12	144.0	100.0%	156.0	100.0%	40.0% *	0	0	0	1.00	0
2012/13	132.0	100.0%	144.0	100.0%	40.0% *	0	0	0	1.00	0
2013/14	120.0	100.0%	132.0	100.0%	40.0% *	0	0	0	1.00	0
2014/15	108.0	100.0%	120.0	100.0%	40.0% *	0	0	0	1.00	0
2015/16	96.0	100.0%	108.0	100.0%	40.0% *	0	0	0	1.00	0
2016/17	84.0	100.0%	96.0	100.0%	40.0% *	6,600	2,640	3,960	1.00	3,960
2017/18	72.0	100.0%	84.0	100.0%	40.0% *	0	0	0	1.00	0
2018/19	60.0	98.0%	72.0	100.0%	40.0% *	54,859	21,944	32,915	1.00	32,915
2019/20	48.0	93.4%	60.0	98.0%	40.0% *	64,387	25,755	38,632	0.98	37,898
2020/21	36.0	86.9%	48.0	93.4%	40.0% *	116,444	46,578	69,866	0.97	67,700
2021/22	24.0	64.4%	36.0	86.9%	40.0% *	193,000	77,200	115,800	0.96	110,705
2022/23	12.0	28.6%	24.0	64.4%	40.0% *	321,696	128,678	193,018	0.96	184,911
2023/24	0.0	0.0%	12.0	28.6%	28.6% *	477,813	136,655	341,158	0.95	324,441
Total						$1,234,799	$439,450	$795,349		$762,530

* - Limited to a maximum of 40% per actuarial judgment.

(3) and (5) are from Exhibit AL-2 (page 1).

(7) to 2022/23 is from Exhibit AL-11 (page 1), (9). The amount for 2023/24 is from Exhibit AL-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit AL-2 (page 1).

City of Miami Beach, Florida
Automobile Liability

Projected Losses Paid October 1, 2024 to September 30, 2025

Claim Period (1)	Months of Development 9/30/24 (2)	Percent Losses Paid (3)	Months of Development 9/30/25 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/24 to 9/30/25 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/24 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/25 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/25 (9)X(10) (11)
1995/96	348.0	100.0%	360.0	100.0%	40.0% *	$0	$0	$0	1.00	$0
1996/97	336.0	100.0%	348.0	100.0%	40.0% *	0	0	0	1.00	0
1997/98	324.0	100.0%	336.0	100.0%	40.0% *	0	0	0	1.00	0
1998/99	312.0	100.0%	324.0	100.0%	40.0% *	0	0	0	1.00	0
1999/00	300.0	100.0%	312.0	100.0%	40.0% *	0	0	0	1.00	0
2000/01	288.0	100.0%	300.0	100.0%	40.0% *	0	0	0	1.00	0
2001/02	276.0	100.0%	288.0	100.0%	40.0% *	0	0	0	1.00	0
2002/03	264.0	100.0%	276.0	100.0%	40.0% *	0	0	0	1.00	0
2003/04	252.0	100.0%	264.0	100.0%	40.0% *	0	0	0	1.00	0
2004/05	240.0	100.0%	252.0	100.0%	40.0% *	0	0	0	1.00	0
2005/06	228.0	100.0%	240.0	100.0%	40.0% *	0	0	0	1.00	0
2006/07	216.0	100.0%	228.0	100.0%	40.0% *	0	0	0	1.00	0
2007/08	204.0	100.0%	216.0	100.0%	40.0% *	0	0	0	1.00	0
2008/09	192.0	100.0%	204.0	100.0%	40.0% *	0	0	0	1.00	0
2009/10	180.0	100.0%	192.0	100.0%	40.0% *	0	0	0	1.00	0
2010/11	168.0	100.0%	180.0	100.0%	40.0% *	0	0	0	1.00	0
2011/12	156.0	100.0%	168.0	100.0%	40.0% *	0	0	0	1.00	0
2012/13	144.0	100.0%	156.0	100.0%	40.0% *	0	0	0	1.00	0
2013/14	132.0	100.0%	144.0	100.0%	40.0% *	0	0	0	1.00	0
2014/15	120.0	100.0%	132.0	100.0%	40.0% *	0	0	0	1.00	0
2015/16	108.0	100.0%	120.0	100.0%	40.0% *	0	0	0	1.00	0
2016/17	96.0	100.0%	108.0	100.0%	40.0% *	3,960	1,584	2,376	1.00	2,376
2017/18	84.0	100.0%	96.0	100.0%	40.0% *	0	0	0	1.00	0
2018/19	72.0	100.0%	84.0	100.0%	40.0% *	32,915	13,166	19,749	1.00	19,749
2019/20	60.0	98.0%	72.0	100.0%	40.0% *	38,632	15,453	23,179	1.00	23,179
2020/21	48.0	93.4%	60.0	98.0%	40.0% *	69,866	27,946	41,920	0.98	41,124
2021/22	36.0	86.9%	48.0	93.4%	40.0% *	115,800	46,320	69,480	0.97	67,326
2022/23	24.0	64.4%	36.0	86.9%	40.0% *	193,018	77,207	115,811	0.96	110,715
2023/24	12.0	28.6%	24.0	64.4%	40.0% *	341,158	136,463	204,695	0.96	196,098
2024/25	0.0	0.0%	12.0	28.6%	28.6% *	506,721	144,922	361,799	0.95	344,071
Total						$1,302,070	$463,061	$839,009		$804,638

* - Limited to a maximum of 40% per actuarial judgment.

(3) and (5) are from Exhibit AL-2 (page 1).

(7) to 2023/24 is from Exhibit AL-11 (page 2), (9). The amount for 2024/25 is from Exhibit AL-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit AL-2 (page 1).

City of Miami Beach, Florida
Automobile Liability

Projected Losses Paid October 1, 2025 to September 30, 2026

Claim Period (1)	Months of Development 9/30/25 (2)	Percent Losses Paid (3)	Months of Development 9/30/26 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/25 to 9/30/26 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/25 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/26 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/26 (9)X(10) (11)
1995/96	360.0	100.0%	372.0	100.0%	40.0% *	$0	$0	$0	1.00	$0
1996/97	348.0	100.0%	360.0	100.0%	40.0% *	0	0	0	1.00	0
1997/98	336.0	100.0%	348.0	100.0%	40.0% *	0	0	0	1.00	0
1998/99	324.0	100.0%	336.0	100.0%	40.0% *	0	0	0	1.00	0
1999/00	312.0	100.0%	324.0	100.0%	40.0% *	0	0	0	1.00	0
2000/01	300.0	100.0%	312.0	100.0%	40.0% *	0	0	0	1.00	0
2001/02	288.0	100.0%	300.0	100.0%	40.0% *	0	0	0	1.00	0
2002/03	276.0	100.0%	288.0	100.0%	40.0% *	0	0	0	1.00	0
2003/04	264.0	100.0%	276.0	100.0%	40.0% *	0	0	0	1.00	0
2004/05	252.0	100.0%	264.0	100.0%	40.0% *	0	0	0	1.00	0
2005/06	240.0	100.0%	252.0	100.0%	40.0% *	0	0	0	1.00	0
2006/07	228.0	100.0%	240.0	100.0%	40.0% *	0	0	0	1.00	0
2007/08	216.0	100.0%	228.0	100.0%	40.0% *	0	0	0	1.00	0
2008/09	204.0	100.0%	216.0	100.0%	40.0% *	0	0	0	1.00	0
2009/10	192.0	100.0%	204.0	100.0%	40.0% *	0	0	0	1.00	0
2010/11	180.0	100.0%	192.0	100.0%	40.0% *	0	0	0	1.00	0
2011/12	168.0	100.0%	180.0	100.0%	40.0% *	0	0	0	1.00	0
2012/13	156.0	100.0%	168.0	100.0%	40.0% *	0	0	0	1.00	0
2013/14	144.0	100.0%	156.0	100.0%	40.0% *	0	0	0	1.00	0
2014/15	132.0	100.0%	144.0	100.0%	40.0% *	0	0	0	1.00	0
2015/16	120.0	100.0%	132.0	100.0%	40.0% *	0	0	0	1.00	0
2016/17	108.0	100.0%	120.0	100.0%	40.0% *	2,376	950	1,426	1.00	1,426
2017/18	96.0	100.0%	108.0	100.0%	40.0% *	0	0	0	1.00	0
2018/19	84.0	100.0%	96.0	100.0%	40.0% *	19,749	7,900	11,849	1.00	11,849
2019/20	72.0	100.0%	84.0	100.0%	40.0% *	23,179	9,272	13,907	1.00	13,907
2020/21	60.0	98.0%	72.0	100.0%	40.0% *	41,920	16,768	25,152	1.00	25,152
2021/22	48.0	93.4%	60.0	98.0%	40.0% *	69,480	27,792	41,688	0.98	40,896
2022/23	36.0	86.9%	48.0	93.4%	40.0% *	115,811	46,324	69,487	0.97	67,333
2023/24	24.0	64.4%	36.0	86.9%	40.0% *	204,695	81,878	122,817	0.96	117,413
2024/25	12.0	28.6%	24.0	64.4%	40.0% *	361,799	144,720	217,079	0.96	207,962
2025/26	0.0	0.0%	12.0	28.6%	28.6% *	537,377	153,690	383,687	0.95	364,886
Total						$1,376,386	$489,294	$887,092		$850,824

* - Limited to a maximum of 40% per actuarial judgment.

(3) and (5) are from Exhibit AL-2 (page 1).

(7) to 2024/25 is from Exhibit AL-11 (page 3), (9). The amount for 2025/26 is from Exhibit AL-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit AL-2 (page 1).

City of Miami Beach, Florida
Automobile Liability

Projected Losses Paid October 1, 2026 to September 30, 2027

Claim Period (1)	Months of Development 9/30/26 (2)	Percent Losses Paid (3)	Months of Development 9/30/27 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/26 to 9/30/27 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/26 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/27 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/27 (9)X(10) (11)
1995/96	372.0	100.0%	384.0	100.0%	40.0% *	$0	$0	$0	1.00	$0
1996/97	360.0	100.0%	372.0	100.0%	40.0% *	0	0	0	1.00	0
1997/98	348.0	100.0%	360.0	100.0%	40.0% *	0	0	0	1.00	0
1998/99	336.0	100.0%	348.0	100.0%	40.0% *	0	0	0	1.00	0
1999/00	324.0	100.0%	336.0	100.0%	40.0% *	0	0	0	1.00	0
2000/01	312.0	100.0%	324.0	100.0%	40.0% *	0	0	0	1.00	0
2001/02	300.0	100.0%	312.0	100.0%	40.0% *	0	0	0	1.00	0
2002/03	288.0	100.0%	300.0	100.0%	40.0% *	0	0	0	1.00	0
2003/04	276.0	100.0%	288.0	100.0%	40.0% *	0	0	0	1.00	0
2004/05	264.0	100.0%	276.0	100.0%	40.0% *	0	0	0	1.00	0
2005/06	252.0	100.0%	264.0	100.0%	40.0% *	0	0	0	1.00	0
2006/07	240.0	100.0%	252.0	100.0%	40.0% *	0	0	0	1.00	0
2007/08	228.0	100.0%	240.0	100.0%	40.0% *	0	0	0	1.00	0
2008/09	216.0	100.0%	228.0	100.0%	40.0% *	0	0	0	1.00	0
2009/10	204.0	100.0%	216.0	100.0%	40.0% *	0	0	0	1.00	0
2010/11	192.0	100.0%	204.0	100.0%	40.0% *	0	0	0	1.00	0
2011/12	180.0	100.0%	192.0	100.0%	40.0% *	0	0	0	1.00	0
2012/13	168.0	100.0%	180.0	100.0%	40.0% *	0	0	0	1.00	0
2013/14	156.0	100.0%	168.0	100.0%	40.0% *	0	0	0	1.00	0
2014/15	144.0	100.0%	156.0	100.0%	40.0% *	0	0	0	1.00	0
2015/16	132.0	100.0%	144.0	100.0%	40.0% *	0	0	0	1.00	0
2016/17	120.0	100.0%	132.0	100.0%	40.0% *	1,426	570	856	1.00	856
2017/18	108.0	100.0%	120.0	100.0%	40.0% *	0	0	0	1.00	0
2018/19	96.0	100.0%	108.0	100.0%	40.0% *	11,849	4,740	7,109	1.00	7,109
2019/20	84.0	100.0%	96.0	100.0%	40.0% *	13,907	5,563	8,344	1.00	8,344
2020/21	72.0	100.0%	84.0	100.0%	40.0% *	25,152	10,061	15,091	1.00	15,091
2021/22	60.0	98.0%	72.0	100.0%	40.0% *	41,688	16,675	25,013	1.00	25,013
2022/23	48.0	93.4%	60.0	98.0%	40.0% *	69,487	27,795	41,692	0.98	40,900
2023/24	36.0	86.9%	48.0	93.4%	40.0% *	122,817	49,127	73,690	0.97	71,406
2024/25	24.0	64.4%	36.0	86.9%	40.0% *	217,079	86,832	130,247	0.96	124,516
2025/26	12.0	28.6%	24.0	64.4%	40.0% *	383,687	153,475	230,212	0.96	220,543
2026/27	0.0	0.0%	12.0	28.6%	28.6% *	569,888	162,988	406,900	0.95	386,962
Total						$1,456,980	$517,826	$939,154		$900,740

* - Limited to a maximum of 40% per actuarial judgment.

(3) and (5) are from Exhibit AL-2 (page 1).

(7) to 2025/26 is from Exhibit AL-11 (page 4), (9). The amount for 2026/27 is from Exhibit AL-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit AL-2 (page 1).

City of Miami Beach, Florida
Automobile Liability

Loss Rate and Severity Trend

Claim Period (1)	Legislative Trend (2022/23 = 1.000) (2)	Residual Trend (2022/23 = 1.000) (3)	Retention Index (2022/23 = 1.000) (4)	Loss Rate Trend (2022/23 = 1.000) (2)X(3)X(4) (5)	Exposure Trend (2022/23 = 1.000) (6)	Severity Trend (2022/23 = 1.000) (5)X(6) (7)
2017/18	1.000	1.276	1.000	1.276	1.000	1.276
2018/19	1.000	1.216	1.000	1.216	1.000	1.216
2019/20	1.000	1.158	1.000	1.158	1.000	1.158
2020/21	1.000	1.103	1.000	1.103	1.000	1.103
2021/22	1.000	1.050	1.000	1.050	1.000	1.050
2022/23	1.000	1.000	1.000	1.000	1.000	1.000
2023/24	1.000	0.952	1.000	0.952	1.000	0.952
2024/25	1.000	0.907	1.000	0.907	1.000	0.907
2025/26	1.000	0.864	1.000	0.864	1.000	0.864
2026/27	1.000	0.823	1.000	0.823	1.000	0.823

(2) is based on industry statistics and actuarial judgment.

(3) is based on 5% trend per actuarial judgment.

(4) is based on industry statistics and actuarial judgment.

(6) is based on 0% trend.

City of Miami Beach, Florida
Public Officials' Liability

Exhibit PO-1

Data Summary as of September 30, 2022

Claim Period (1)	Specific Self-Insured Retention (2)	Aggregate Retention (3)	Months of Development 9/30/22 (4)	Payroll (000) (5)	Reported Claims 9/30/22 (6)	Reported Open Claims 9/30/22 (7)	Limited Paid Losses 9/30/22 (8)	Limited Case Reserves 9/30/22 (9)	Limited Reported Incurred Losses 9/30/22 (10)
1995/96	Tort cap	None	324.0	Not Provided	1	0	$660,418	$0	$660,418
1996/97	Tort cap	None	312.0	57,231	0	0	0	0	0
1997/98	Tort cap	None	300.0	61,976	0	0	0	0	0
1998/99	Tort cap	None	288.0	68,497	0	0	0	0	0
1999/00	Tort cap	None	276.0	74,809	0	0	0	0	0
2000/01	Tort cap	None	264.0	73,865	0	0	0	0	0
2001/02	Tort cap	None	252.0	70,303	0	0	0	0	0
2002/03	Tort cap	None	240.0	76,473	0	0	0	0	0
2003/04	Tort cap	None	228.0	83,289	1	0	62,758	0	62,758
2004/05	Tort cap	None	216.0	84,786	0	0	0	0	0
2005/06	Tort cap	None	204.0	112,300	1	0	0	0	0
2006/07	Tort cap	None	192.0	122,895	0	0	0	0	0
2007/08	Tort cap	None	180.0	129,842	3	0	23,207	0	23,207
2008/09	Tort cap	None	168.0	135,954	2	1	2,242,407	5,855	2,248,262
2009/10	Tort cap	None	156.0	139,615	2	0	0	0	0
2010/11	Tort cap	None	144.0	140,288	3	0	562,770	0	562,770
2011/12	Tort cap	None	132.0	144,516	1	0	500	0	500
2012/13	Tort cap	None	120.0	135,454	0	0	0	0	0
2013/14	Tort cap	None	108.0	144,287	4	0	209,174	0	209,174
2014/15	Tort cap	None	96.0	141,271	0	0	0	0	0
2015/16	Tort cap	None	84.0	151,687	0	0	0	0	0
2016/17	Tort cap	None	72.0	166,079	1	0	3,055	0	3,055
2017/18	Tort cap	None	60.0	164,071	1	0	0	0	0
2018/19	Tort cap	None	48.0	164,860	1	1	74,119	26,431	100,550
2019/20	Tort cap	None	36.0	166,025	0	0	0	0	0
2020/21	Tort cap	None	24.0	168,443	0	0	0	0	0
2021/22	Tort cap	None	12.0	173,411	0	0	0	0	0
Total					21	2	$3,838,408	$32,286	$3,870,694

Data was provided by the City.

City of Miami Beach, Florida
Public Officials' Liability

Summary of Percent Losses Paid, Losses Reported and Claims Reported

Months of Development (1)	Percent Losses Paid (2)	Percent Losses Reported (3)	Percent Claims Reported (4)
360.0	100.0%	100.0%	100.0%
348.0	100.0%	100.0%	100.0%
336.0	100.0%	100.0%	100.0%
324.0	100.0%	100.0%	100.0%
312.0	100.0%	100.0%	100.0%
300.0	100.0%	100.0%	100.0%
288.0	100.0%	100.0%	100.0%
276.0	100.0%	100.0%	100.0%
264.0	100.0%	100.0%	100.0%
252.0	100.0%	100.0%	100.0%
240.0	100.0%	100.0%	100.0%
228.0	100.0%	100.0%	100.0%
216.0	100.0%	100.0%	100.0%
204.0	100.0%	100.0%	100.0%
192.0	100.0%	100.0%	100.0%
180.0	100.0%	100.0%	100.0%
168.0	100.0%	100.0%	100.0%
156.0	100.0%	100.0%	100.0%
144.0	100.0%	100.0%	100.0%
132.0	100.0%	100.0%	100.0%
120.0	100.0%	100.0%	100.0%
108.0	100.0%	100.0%	100.0%
96.0	99.5%	100.0%	100.0%
84.0	98.5%	99.5%	100.0%
72.0	97.1%	98.5%	100.0%
60.0	94.7%	96.6%	99.0%
48.0	90.2%	92.9%	96.6%
36.0	82.0%	86.4%	92.0%
24.0	65.6%	78.6%	83.6%
12.0	18.7%	26.2%	41.8%

(2) is from Exhibit PO-2 (page 2).

(3) is from Exhibit PO-2 (page 3).

(4) is from Exhibit PO-2 (page 4).

City of Miami Beach, Florida
Public Officials' Liability

Historical Unlimited and Gross of Recoveries Paid Losses ($000) and Unlimited and Gross of Recoveries Paid Loss Development

I. Historical Unlimited and Gross of Recoveries Paid Losses ($000)

Claim Period	Months of Development: 12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
2002/03	$7	$7	$23	$23	$23	$24	$24	$24	$24	$24	$24	$24	$24	$24	$24	$24	$24	$24	$0	$0
2003/04	76	76	88	89	90	91	91	91	91	91	91	91	91	91	91	91	91	63	63	
2004/05	13	48	56	56	58	60	60	60	60	60	60	60	60	60	60	60	0	0		
2005/06	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0	0			
2006/07	21	21	21	23	23	23	23	23	23	23	23	23	23	23	0	0				
2007/08	76	76	76	76	76	76	76	76	76	76	76	76	76	23	23					
2008/09	63	63	71	71	71	75	113	326	627	814	943	2,300	3,244	2,242						
2009/10	95	97	97	97	97	97	97	97	97	98	98	0	0							
2010/11	0	194	210	210	610	684	689	703	703	703	563	563								
2011/12	1	3	3	3	3	3	3	3	3	1	1									
2012/13	0	0	0	0	0	2	4	4	0	0										
2013/14	0	10	10	10	20	89	288	209	209											
2014/15	35	20	20	20	20	20	0	0												
2015/16	0	0	10	10	10	0	0													
2016/17	0	0	61	61	3	3														
2017/18	0	0	0	0	0															
2018/19	0	6	75	74																
2019/20	268	140	0																	
2020/21	0	0																		
2021/22	0																			

II. Unlimited and Gross of Recoveries Paid Loss Development

Claim Period	Months of Development: 12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
2002/03	1.045	3.336	1.000	1.000	1.036	1.000	1.000	1.000	1.000	1.000	1.000	1.004	1.000	1.000	1.000	1.000	1.000	0.000		
2003/04	1.007	1.154	1.008	1.018	1.009	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	0.690	1.000		
2004/05	3.833	1.155	1.000	1.040	1.034	1.000	1.000	1.000	1.000	0.996	1.000	1.000	1.000	1.000	1.000	0.000				
2005/06	1.969	1.093	1.000	1.000	1.000	1.000	1.000	1.000	0.911	1.000	1.000	1.000	1.000	1.000	0.000					
2006/07	1.000	1.005	1.125	1.000	1.000	1.000	1.000	0.992	1.000	1.000	1.000	1.000	1.000	0.000						
2007/08	1.003	1.000	1.002	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	0.305	1.000						
2008/09	1.004	1.128	1.000	1.000	1.057	1.507	2.885	1.924	1.298	1.158	2.439	1.410	0.691							
2009/10	1.019	1.000	1.005	1.000	0.996	1.000	1.000	1.003	1.008	1.000	0.000									
2010/11	431.789	1.079	1.000	2.910	1.121	1.008	1.020	1.000	1.000	0.801	1.000									
2011/12	5.049	1.000	1.189	1.000	1.000	1.000	1.000	1.000	0.167	1.000										
2012/13						2.000	1.000	0.000												
2013/14		1.000	1.000	2.039	4.371	3.235	0.726	1.000												
2014/15	0.571	1.000	1.000	1.000	1.000	0.000														
2015/16			1.020	1.000	0.000															
2016/17			1.000	0.050	1.000															
2017/18																				
2018/19		12.252	0.983																	
2019/20	0.525	0.000																		
2020/21																				
2021/22																				
Average																				
All	37.484	1.943	1.022	1.147	1.187	1.212	1.136	0.993	0.938	0.996	1.049	1.059	0.857	0.833	0.750	0.667	0.845	0.500		
Wtd 3			0.990	0.184	0.699	2.642	0.730	0.980	0.996	0.825	1.785	1.397	0.685	0.542	0.938	0.603	0.754			
Last 3				0.683	0.667	1.745	0.909	0.667	0.725	0.934	1.146	1.137	0.666	0.667	0.667	0.667				
Last 5						1.336	1.000	1.000	1.003	1.000	1.000	1.000	0.897	1.000						
x-hi,low																				
Previous	3.500	1.250	1.100	1.050	1.025	1.015	1.010	1.005	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	3.500	1.250	1.100	1.050	1.025	1.015	1.010	1.005	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	5.338	1.525	1.220	1.109	1.056	1.030	1.015	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Percent Losses Paid	18.7%	65.6%	82.0%	90.2%	94.7%	97.1%	98.5%	99.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Section I was provided by the City and previous actuarial studies. Shaded area is the old database.

City of Miami Beach, Florida
Public Officials' Liability

Historical Unlimited and Gross of Recoveries Reported Incurred Losses ($000) and Unlimited and Gross of Recoveries Reported Incurred Loss Development

I. Historical Unlimited and Gross of Recoveries Reported Incurred Losses ($000)

Claim Period	Months of Development: 12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
2002/03		$70	$100	$100	$100	$90	$90	$90	$90	$90	$90	$90	$90	$90	$90	$90	$24	$24	$0	$0
2003/04	14	39	81	81	48	49	49	49	49	49	49	49	24	24	24	91	91	63	63	
2004/05	83	95	131	128	115	116	91	91	91	91	91	91	91	91	60	60	0	0		
2005/06	182	248	66	56	108	110	110	110	110	113	60	60	60	4	4	0	0			
2006/07	25	20	4	4	4	4	4	9	9	4	4	4	23	23	0	0				
2007/08	21	23	23	23	23	23	23	23	23	23	23	118	118	23	23					
2008/09	78	98	88	91	86	86	86	81	81	118	1,571	2,493	3,282	2,248						
2009/10	75	86	122	116	126	147	173	370	760	103	98	0	0							
2010/11	105	107	107	117	115	105	102	102	855	771	563	563								
2011/12	75	270	285	310	771	830	845	3	3	1	1									
2012/13	1	98	98	3	3	3	4	4	0	0										
2013/14	0	0	0	0	0	94	294	209	209											
2014/15	15	15	15	15	20	20	0	0												
2015/16	73	58	20	10	10	0	0													
2016/17	0	0	61	61	13	3														
2017/18	0	0	0	0	0															
2018/19	0	20	75	101																
2019/20	803	140	0																	
2020/21	0	0																		
2021/22	0																			

II. Unlimited and Gross of Recoveries Reported Incurred Loss Development

Claim Period	Months of Development: 12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
2002/03		1.428	1.000	1.000	0.900	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.267	1.000	0.000		
2003/04	2.792	2.044	1.000	0.597	1.017	1.000	1.000	1.000	1.000	1.000	1.000	0.491	1.000	1.000	3.792	1.000	0.690	1.000		
2004/05	1.152	1.378	0.976	0.901	1.007	0.784	1.000	1.000	1.000	1.000	1.001	1.000	1.000	0.659	1.000	0.000				
2005/06	1.361	0.266	0.848	1.933	1.018	1.000	1.000	1.000	1.023	0.532	1.000	1.000	0.067	1.000	0.000					
2006/07	0.800	0.220	1.000	1.000	1.000	1.000	2.139	1.000	0.426	1.000	1.000	5.750	1.000	0.000						
2007/08	1.127	1.004	1.003	0.996	1.000	1.000	1.000	0.992	1.000	1.000	5.139	1.000	0.196	1.000						
2008/09	1.256	0.900	1.030	0.945	1.000	1.000	0.942	1.000	1.459	13.292	1.587	1.317	0.685							
2009/10	1.149	1.416	0.951	1.086	1.160	1.180	2.139	2.054	0.136	0.951	0.000									
2010/11	1.017	1.000	1.098	0.979	0.914	0.971	1.000	8.387	0.902	0.730	1.000									
2011/12	3.581	1.054	1.088	2.488	1.077	1.019	0.004	1.000	0.167	1.000										
2012/13	196.049	0.995	0.031	1.000	1.000	1.467	1.000	0.000												
2013/14						3.125	0.711	1.000												
2014/15	1.000	1.000	1.000	1.333	1.000	0.000														
2015/16	0.795	0.345	0.496	1.000	0.000															
2016/17			1.000	0.215	0.234															
2017/18																				
2018/19		3.771	1.333																	
2019/20	0.175	0.000																		
2020/21																				
2021/22																				
Average																				
All	16.327	1.121	0.924	1.105	0.881	1.119	1.078	1.619	0.811	2.151	1.414	1.651	0.707	0.777	1.448	0.422	0.845	0.500		
Wtd 3		0.470	1.185	0.325	0.536	2.577	0.715	0.980	0.899	0.756	1.369	1.302	0.670	0.542	0.938	0.603	0.754			
Last 3				0.849	0.411	1.531	0.572	0.667	0.401	0.894	0.862	2.689	0.627	0.667	1.597	0.422				
Last 5						1.152	0.904	1.351	0.689	0.984	1.196	1.106	0.627	0.886						
x-hi,low																				
Previous	3.000	1.100	1.075	1.040	1.020	1.010	1.005	1.000	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	3.000	1.100	1.075	1.040	1.020	1.010	1.005	1.000	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	3.819	1.273	1.157	1.076	1.035	1.015	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Percent Losses Reported	26.2%	78.6%	86.4%	92.9%	96.6%	98.5%	99.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Section I was provided by the City and previous actuarial studies. Shaded area is the old database.

City of Miami Beach, Florida
Public Officials' Liability

Historical Reported Claims and Reported Claim Development

I. Historical Reported Claims

Claim Period	Months of Development: 12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
2002/03																			0	0
2003/04																		0	1	
2004/05																	0	0		
2005/06																0	1			
2006/07															0	0				
2007/08														0	3					
2008/09													0	2						
2009/10												0	2							
2010/11											0	3								
2011/12										0	1									
2012/13									0	0										
2013/14								0	4											
2014/15							0	0												
2015/16						0	0													
2016/17					0	1														
2017/18				0	1															
2018/19			0	1																
2019/20		0	0																	
2020/21	0	0																		
2021/22	0																			

II. Reported Claim Development

Claim Period	Months of Development: 12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
2002/03																				
2003/04																				
2004/05																				
2005/06																				
2006/07																				
2007/08																				
2008/09																				
2009/10																				
2010/11																				
2011/12																				
2012/13																				
2013/14																				
2014/15																				
2015/16																				
2016/17																				
2017/18																				
2018/19																				
2019/20																				
2020/21																				
2021/22																				
Average																				
All																				
Wtd 3																				
Last 3																				
Last 5																				
x-hi,low																				
Previous	2.000	1.100	1.050	1.025	1.010	1.000	1.000	1.000	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	2.000	1.100	1.050	1.025	1.010	1.000	1.000	1.000	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	2.392	1.196	1.087	1.035	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Percent Claims Reported	41.8%	83.6%	92.0%	96.6%	99.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Section I was provided by the City and previous actuarial studies. Shaded area is the old database.

Developed Limited Paid Losses, Reported Incurred Losses and Case Reserves

Claim Period (1)	Months of Development 9/30/22 (2)	Percent Losses Paid (3)	Percent Losses Reported (4)	Percent Losses Reserved 9/30/22 ((4)-(3))/ (100.0%-(3)) (5)	Limited Paid Losses 9/30/22 (6)	Limited Case Reserves 9/30/22 (7)	Limited Reported Incurred Losses 9/30/22 (8)	Developed Limited Paid Losses (6)/(3) (9)	Developed Limited Reported Incurred Losses (8)/(4) (10)	Developed Limited Case Reserves (6)+(7)/(5) (11)
1995/96	324.0	100.0%	100.0%	100.0%	$660,418	$0	$660,418	$660,418	$660,418	$660,418
1996/97	312.0	100.0%	100.0%	100.0%	0	0	0	0	0	0
1997/98	300.0	100.0%	100.0%	100.0%	0	0	0	0	0	0
1998/99	288.0	100.0%	100.0%	100.0%	0	0	0	0	0	0
1999/00	276.0	100.0%	100.0%	100.0%	0	0	0	0	0	0
2000/01	264.0	100.0%	100.0%	100.0%	0	0	0	0	0	0
2001/02	252.0	100.0%	100.0%	100.0%	0	0	0	0	0	0
2002/03	240.0	100.0%	100.0%	100.0%	0	0	0	0	0	0
2003/04	228.0	100.0%	100.0%	100.0%	62,758	0	62,758	62,758	62,758	62,758
2004/05	216.0	100.0%	100.0%	100.0%	0	0	0	0	0	0
2005/06	204.0	100.0%	100.0%	100.0%	0	0	0	0	0	0
2006/07	192.0	100.0%	100.0%	100.0%	0	0	0	0	0	0
2007/08	180.0	100.0%	100.0%	100.0%	23,207	0	23,207	23,207	23,207	23,207
2008/09	168.0	100.0%	100.0%	100.0%	2,242,407	5,855	2,248,262	2,242,407	2,248,262	2,248,262
2009/10	156.0	100.0%	100.0%	100.0%	0	0	0	0	0	0
2010/11	144.0	100.0%	100.0%	100.0%	562,770	0	562,770	562,770	562,770	562,770
2011/12	132.0	100.0%	100.0%	100.0%	500	0	500	500	500	500
2012/13	120.0	100.0%	100.0%	100.0%	0	0	0	0	0	0
2013/14	108.0	100.0%	100.0%	100.0%	209,174	0	209,174	209,174	209,174	209,174
2014/15	96.0	99.5%	100.0%	100.0%	0	0	0	0	0	0
2015/16	84.0	98.5%	99.5%	66.7%	0	0	0	0	0	0
2016/17	72.0	97.1%	98.5%	48.3%	3,055	0	3,055	3,146	3,102	3,055
2017/18	60.0	94.7%	96.6%	35.8%	0	0	0	0	0	0
2018/19	48.0	90.2%	92.9%	27.6%	74,119	26,431	100,550	82,172	108,235	170,054
2019/20	36.0	82.0%	86.4%	24.4%	0	0	0	0	0	0
2020/21	24.0	65.6%	78.6%	37.8%	0	0	0	0	0	0
2021/22	12.0	18.7%	26.2%	9.2%	0	0	0	0	0	0

(3) and (4) are based on Exhibit PO-2 (page 1).

(6), (7) and (8) are from Exhibit PO-1.

Preliminary Projected Ultimate Limited Losses to 2021/22

Claim Period (1)	Developed Limited Paid Losses (2)	Developed Limited Reported Incurred Losses (3)	Developed Limited Case Reserves (4)	Preliminary Projected Ultimate Limited Losses (5)
1995/96	$660,418	$660,418	$660,418	$660,418
1996/97	0	0	0	0
1997/98	0	0	0	0
1998/99	0	0	0	0
1999/00	0	0	0	0
2000/01	0	0	0	0
2001/02	0	0	0	0
2002/03	0	0	0	0
2003/04	62,758	62,758	62,758	62,758
2004/05	0	0	0	0
2005/06	0	0	0	0
2006/07	0	0	0	0
2007/08	23,207	23,207	23,207	23,207
2008/09	2,242,407	2,248,262	2,248,262	2,273,262
2009/10	0	0	0	0
2010/11	562,770	562,770	562,770	562,770
2011/12	500	500	500	500
2012/13	0	0	0	0
2013/14	209,174	209,174	209,174	209,174
2014/15	0	0	0	0
2015/16	0	0	0	0
2016/17	3,146	3,102	3,055	3,055
2017/18	0	0	0	0
2018/19	82,172	108,235	170,054	139,144
2019/20	0	0	0	50,000
2020/21	0	0	0	50,000
2021/22	0	0	0	100,000

(2), (3) and (4) are from Exhibit PO-3.

(5) is based on (2) to (4), weighted as follows:

Subject to a minimum of Exhibit PO-1, (10) and minimum 10% of case reserves or $25,000 per open claim as IBNR for claim periods with open claims.

Claim Period	Developed Limited Paid Losses	Developed Limited Reported Incurred Losses	Developed Limited Case Reserves
to 2007/08	0.0%	0.0%	100.0%
2008/09	0.0%	0.0%	100.0%
2009/10	0.0%	0.0%	100.0%
2010/11	0.0%	0.0%	100.0%
2011/12	0.0%	0.0%	100.0%
2012/13	0.0%	10.0%	90.0%
2013/14	0.0%	20.0%	80.0%
2014/15	0.0%	30.0%	70.0%
2015/16	0.0%	40.0%	60.0%
2016/17	0.0%	50.0%	50.0%
2017/18	0.0%	50.0%	50.0%
2018/19	0.0%	50.0%	50.0%
2019/20		Actuarial judgment	
2020/21		Actuarial judgment	
2021/22		Actuarial judgment	

City of Miami Beach, Florida
Public Officials' Liability

Bornhuetter - Ferguson Analysis

I. A-priori Loss Rate

Claim Period (1)	Preliminary Projected Ultimate Limited Losses (2)	Payroll (000) (3)	Limited Loss Rate per $1,000 of Payroll (2)/(3) (4)	Loss Rate Trend (2022/23 = 1.000) (5)	Trended Limited Loss Rate per $1,000 of Payroll (4)X(5) (6)	Projected A-priori Loss Rate per $1,000 of Payroll (7)/(5) (8)
2017/18	$0	$164,071	$0.00	1.051	$0.00	$0.39
2018/19	139,144	164,860	0.84	1.041	0.88	0.40
2019/20	50,000	166,025	0.30	1.030	0.31	0.40
2020/21	50,000	168,443	0.30	1.020	0.30	0.41
2021/22	100,000	173,411	0.58	1.010	0.58	0.41

(7) Projected 2022/23 a-priori loss rate per $1,000 of Payroll $0.41

II. Bornhuetter - Ferguson Analysis Based on Limited Paid Losses

Claim Period (1)	Limited Paid Losses 9/30/22 (2)	Percent Losses Paid (3)	Projected A-priori Loss Rate per $1,000 of Payroll (4)	Payroll (000) (5)	B-F Unpaid Losses (100.0%-(3)) X(4)X(5) (6)	B-F Ultimate Limited Paid Losses (2)+(6) (7)
2017/18	$0	94.7%	$0.39	$164,071	$3,432	$3,432
2018/19	74,119	90.2%	0.40	164,860	6,440	80,559
2019/20	0	82.0%	0.40	166,025	12,030	12,030
2020/21	0	65.6%	0.41	168,443	23,560	23,560
2021/22	0	18.7%	0.41	173,411	57,895	57,895

III. Bornhuetter - Ferguson Analysis Based on Limited Reported Incurred Losses

Claim Period (1)	Limited Reported Incurred Losses 9/30/22 (2)	Percent Losses Reported (3)	Projected A-priori Loss Rate per $1,000 of Payroll (4)	Payroll (000) (5)	B-F Unreported Losses (100.0%-(3)) X(4)X(5) (6)	B-F Ultimate Limited Reported Losses (2)+(6) (7)
2017/18	$0	96.6%	$0.39	$164,071	$2,201	$2,201
2018/19	100,550	92.9%	0.40	164,860	4,665	105,215
2019/20	0	86.4%	0.40	166,025	9,090	9,090
2020/21	0	78.6%	0.41	168,443	14,656	14,656
2021/22	0	26.2%	0.41	173,411	52,555	52,555

Section I, (2) is from Exhibit PO-4.

Section I, (3), Section II, (5) and Section III, (5) were provided by the City.

Section I, (5) is from Exhibit PO-12.

Section I, (7) is based on Section I, (6) and the following weights:

Claim Period	Weight
2017/18	20.0%
2018/19	20.0%
2019/20	20.0%
2020/21	20.0%
2021/22	20.0%

Sections II and III, (2) are from Exhibit PO-1.

Sections II and III, (3) are based on Exhibit PO-2 (page 1).

Sections II and III, (4) are from Section I, (8).

City of Miami Beach, Florida
Public Officials' Liability

Frequency Times Severity Analysis

I. Projected Ultimate Claims

Claim Period (1)	Months of Development 9/30/22 (2)	Reported Claims 9/30/22 (3)	Percent Claims Reported (4)	Projected Ultimate Claims (3)/(4) (5)	Reported Open Claims 9/30/22 (6)	Number of IBNR Claims (5)-(3) (7)	Open Claims 9/30/22 (6)+(7) (8)
2017/18	60.0	1	99.0%	1	0	0	0
2018/19	48.0	1	96.6%	1	1	0	1
2019/20	36.0	0	92.0%	0	0	0	0
2020/21	24.0	0	83.6%	0	0	0	0
2021/22	12.0	0	41.8%	0	0	0	0

II. Frequency Times Severity

Claim Period (1)	Preliminary Projected Ultimate Limited Losses (2)	Projected Ultimate Claims (3)	Average Severity (2)/(3) (4)	Severity Trend (2022/23 = 1.000) (5)	Trended Average Claim Severity (4)X(5) (6)	De-Trended Projected 2022/23 Average Claim Severity (7)/(5) (8)	Frequency Times Severity (3)X(8) (9)
2017/18	$0	1	$0	1.160	$0	$33,766	$33,766
2018/19	139,144	1	139,144	1.126	156,730	34,786	34,786
2019/20	50,000	0		1.093	0	35,837	0
2020/21	50,000	0		1.061	0	36,919	0
2021/22	100,000	0		1.030	0	38,034	0
	(7) Projected 2022/23 average claim severity				$39,182		

Section I, (3) and (6) are from Exhibit PO-1.

Section I, (4) is from Exhibit PO-2.

Section II, (2) is from Exhibit PO-4.

Section II, (3) is from Section I, (5).

Section II, (5) is from Exhibit PO-12.

Section II, (7) is based on (6) and the following weights:

Claim Period	Weight
2017/18	25.0%
2018/19	25.0%
2019/20	0.0%
2020/21	25.0%
2021/22	25.0%

Projected Ultimate Limited Losses to 2021/22

Claim Period (1)	Developed Limited Paid Losses (2)	Developed Limited Reported Incurred Losses (3)	Developed Limited Case Reserves (4)	B-F Paid Method Ultimate Losses (5)	B-F Reported Method Ultimate Losses (6)	Frequency Times Severity (7)	Previous Projected Ultimate Limited Losses (9/30/21) (8)	Projected Ultimate Limited Losses (9)	Change in Projected Ultimate Limited Losses (9)-(8) (10)
1995/96	$660,418	$660,418	$660,418				$660,418	$660,418	$0
1996/97	0	0	0				0	0	0
1997/98	0	0	0				0	0	0
1998/99	0	0	0				0	0	0
1999/00	0	0	0				0	0	0
2000/01	0	0	0				0	0	0
2001/02	0	0	0				0	0	0
2002/03	0	0	0				0	0	0
2003/04	62,758	62,758	62,758				62,758	62,758	0
2004/05	0	0	0				0	0	0
2005/06	0	0	0				0	0	0
2006/07	0	0	0				0	0	0
2007/08	23,207	23,207	23,207				23,207	23,207	0
2008/09	2,242,407	2,248,262	2,248,262				3,758,262	2,273,262	(1,485,000)
2009/10	0	0	0				0	0	0
2010/11	562,770	562,770	562,770				562,770	562,770	0
2011/12	500	500	500				500	500	0
2012/13	0	0	0				0	0	0
2013/14	209,174	209,174	209,174				209,174	209,174	0
2014/15	0	0	0				0	0	0
2015/16	0	0	0				0	0	0
2016/17	3,146	3,102	3,055				38,055	3,055	(35,000)
2017/18	0	0	0	3,432	2,201	33,766	0	0	0
2018/19	82,172	108,235	170,054	80,559	105,215	34,786	141,882	139,144	(2,738)
2019/20	0	0	0	12,030	9,090		189,598	50,000	(139,598)
2020/21	0	0	0	23,560	14,656		100,000	50,000	(50,000)
2021/22	0	0	0	57,895	52,555		149,068	100,000	(49,068)

(2), (3) and (4) are from Exhibit PO-3.

(5) and (6) are from Exhibit PO-5.

(7) is from Exhibit PO-6.

(8) is from the previous study.

(9) is based on (2) to (8), weighted as follows:

Subject to a minimum of Exhibit PO-1, (10) and minimum 10% of case reserves or $25,000 per open claim as IBNR for claim periods with open claims.

Claim Period	Developed Limited Paid Losses	Developed Limited Reported Incurred Losses	Developed Limited Case Reserves	B-F Paid Method Ultimate Losses	B-F Reported Method Ultimate Losses	Frequency Times Severity	Previous Projected Ultimate Limited Losses
to 2007/08	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
2008/09	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
2009/10	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
2010/11	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
2011/12	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
2012/13	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
2013/14	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
2014/15	0.0%	10.0%	90.0%	0.0%	0.0%	0.0%	0.0%
2015/16	0.0%	20.0%	80.0%	0.0%	0.0%	0.0%	0.0%
2016/17	0.0%	30.0%	70.0%	0.0%	0.0%	0.0%	0.0%
2017/18	0.0%	40.0%	60.0%	0.0%	0.0%	0.0%	0.0%
2018/19	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%
2019/20				Actuarial judgment			
2020/21				Actuarial judgment			
2021/22				Actuarial judgment			
Total Last 5	$82,172	$108,235	$170,054	$177,475	$183,717	$68,552	$580,548

Average projected ultimate limited losses total last 5, excluding previous:	$131,701
Projected ultimate limited losses total last 5	$339,144

City of Miami Beach, Florida
Public Officials' Liability

Projected Ultimate Limited Losses for 2022/23 and Subsequent

Claim Period (1)	Projected Ultimate Limited Losses (2)	Payroll (000) (3)	Limited Loss Rate per $1,000 of Payroll (2)/(3) (4)	Loss Rate Trend (2022/23 = 1.000) (5)	Trended Limited Loss Rate per $1,000 of Payroll (4)X(5) (6)
2017/18	$0	$164,071	$0.00	1.051	$0.00
2018/19	139,144	164,860	0.84	1.041	0.88
2019/20	50,000	166,025	0.30	1.030	0.31
2020/21	50,000	168,443	0.30	1.020	0.30
2021/22	100,000	173,411	0.58	1.010	0.58
Total	$339,144	$836,810	$0.41		$0.41

Claim Period (1)	Projected Limited Loss Rate per $1,000 of Payroll (7)	Projected Payroll (000) (8)	Projected Ultimate Limited Losses (7)X(8) (9)	Present Value Factor (10)	Present Value of Projected Limited Loss Rate per $1,000 of Payroll (7)X(10) (11)	Present Value of Projected Ultimate Limited Losses (8)X(11) (12)
2022/23	$0.62	$176,880	$110,044	0.93	$0.58	$101,791
2023/24	0.63	180,417	113,367	0.93	0.58	104,865
2024/25	0.63	184,026	116,791	0.93	0.59	108,032
2025/26	0.64	187,706	120,318	0.93	0.59	111,294
2026/27	0.65	191,460	123,952	0.93	0.60	114,655

(2) is from Exhibit PO-7.

(3) was provided by the City.

(5) is from Exhibit PO-12.

(7) for 2022/23 is based on (6) and the following weights plus 50.0% per actuarial judgment for large claims not respresented in the data:

Claim Period	Weight
2017/18	20.0%
2018/19	20.0%
2019/20	20.0%
2020/21	20.0%
2021/22	20.0%

(7) for 2023/24 and subsequent are based on 2022/23 plus the trend in Exhibit PO-12.

(8) is based on (3) for 2021/22 and a 2% trend.

(10) is based on a 4% interest rate and the payout pattern in Exhibit PO-2 (page 1).

City of Miami Beach, Florida
Public Officials' Liability

Estimated Outstanding Losses as of September 30, 2022

Claim Period (1)	Limited Paid Losses 9/30/22 (2)	Limited Case Reserves 9/30/22 (3)	Limited Reported Incurred Losses 9/30/22 (4)	Projected Ultimate Limited Losses (5)	Estimated Outstanding Losses 9/30/22 (5)-(2) (6)	Estimated IBNR 9/30/22 (6)-(3) (7)
1995/96	$660,418	$0	$660,418	$660,418	$0	$0
1996/97	0	0	0	0	0	0
1997/98	0	0	0	0	0	0
1998/99	0	0	0	0	0	0
1999/00	0	0	0	0	0	0
2000/01	0	0	0	0	0	0
2001/02	0	0	0	0	0	0
2002/03	0	0	0	0	0	0
2003/04	62,758	0	62,758	62,758	0	0
2004/05	0	0	0	0	0	0
2005/06	0	0	0	0	0	0
2006/07	0	0	0	0	0	0
2007/08	23,207	0	23,207	23,207	0	0
2008/09	2,242,407	5,855	2,248,262	2,273,262	30,855	25,000
2009/10	0	0	0	0	0	0
2010/11	562,770	0	562,770	562,770	0	0
2011/12	500	0	500	500	0	0
2012/13	0	0	0	0	0	0
2013/14	209,174	0	209,174	209,174	0	0
2014/15	0	0	0	0	0	0
2015/16	0	0	0	0	0	0
2016/17	3,055	0	3,055	3,055	0	0
2017/18	0	0	0	0	0	0
2018/19	74,119	26,431	100,550	139,144	65,025	38,594
2019/20	0	0	0	50,000	50,000	50,000
2020/21	0	0	0	50,000	50,000	50,000
2021/22	0	0	0	100,000	100,000	100,000
Total	$3,838,408	$32,286	$3,870,694	$4,134,288	$295,880	$263,594

(2), (3) and (4) are from Exhibit PO-1, and net of the specific self insured retention and aggregate retention.

(5) is from Exhibit PO-7. .

City of Miami Beach, Florida
Public Officials' Liability

Present Value of Estimated Outstanding Losses as of December 31, 2021

Claim Period (1)	Estimated Outstanding Losses 9/30/22 (2)	Present Value Factor (3)	Present Value of Estimated Outstanding Losses 9/30/22 (2)X(3) (4)	Anticipated Future Investment Income (2)-(4) (5)
1995/96	$0	1.00	$0	$0
1996/97	0	1.00	0	0
1997/98	0	1.00	0	0
1998/99	0	1.00	0	0
1999/00	0	1.00	0	0
2000/01	0	1.00	0	0
2001/02	0	1.00	0	0
2002/03	0	1.00	0	0
2003/04	0	1.00	0	0
2004/05	0	1.00	0	0
2005/06	0	1.00	0	0
2006/07	0	1.00	0	0
2007/08	0	1.00	0	0
2008/09	30,855	1.00	30,855	0
2009/10	0	1.00	0	0
2010/11	0	1.00	0	0
2011/12	0	1.00	0	0
2012/13	0	1.00	0	0
2013/14	0	1.00	0	0
2014/15	0	0.98	0	0
2015/16	0	0.97	0	0
2016/17	0	0.96	0	0
2017/18	0	0.95	0	0
2018/19	65,025	0.94	61,254	3,771
2019/20	50,000	0.94	47,000	3,000
2020/21	50,000	0.94	47,000	3,000
2021/22	100,000	0.95	94,800	5,200
Total	$295,880		$280,909	$14,971

(2) is from Exhibit PO-9.

(3) is based on a 4% interest rate and the payout pattern in Exhibit PO-2 (page 1).

City of Miami Beach, Florida
Public Officials' Liability

Projected Losses Paid October 1, 2022 to September 30, 2023

Claim Period (1)	Months of Development 9/30/22 (2)	Percent Losses Paid (3)	Months of Development 9/30/23 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/22 to 9/30/23 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/22 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/23 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/23 (9)X(10) (11)
1995/96	300.0	100.0%	336.0	100.0%	20.0% *	$0	$0	$0	1.00	$0
1996/97	288.0	100.0%	324.0	100.0%	20.0% *	0	0	0	1.00	0
1997/98	276.0	100.0%	312.0	100.0%	20.0% *	0	0	0	1.00	0
1998/99	264.0	100.0%	300.0	100.0%	20.0% *	0	0	0	1.00	0
1999/00	252.0	100.0%	288.0	100.0%	20.0% *	0	0	0	1.00	0
2000/01	240.0	100.0%	276.0	100.0%	20.0% *	0	0	0	1.00	0
2001/02	228.0	100.0%	264.0	100.0%	20.0% *	0	0	0	1.00	0
2002/03	216.0	100.0%	252.0	100.0%	20.0% *	0	0	0	1.00	0
2003/04	204.0	100.0%	240.0	100.0%	20.0% *	0	0	0	1.00	0
2004/05	192.0	100.0%	228.0	100.0%	20.0% *	0	0	0	1.00	0
2005/06	180.0	100.0%	216.0	100.0%	20.0% *	0	0	0	1.00	0
2006/07	168.0	100.0%	204.0	100.0%	20.0% *	0	0	0	1.00	0
2007/08	156.0	100.0%	192.0	100.0%	20.0% *	0	0	0	1.00	0
2008/09	144.0	100.0%	180.0	100.0%	20.0% *	30,855	6,171	24,684	1.00	24,684
2009/10	132.0	100.0%	168.0	100.0%	20.0% *	0	0	0	1.00	0
2010/11	120.0	100.0%	156.0	100.0%	20.0% *	0	0	0	1.00	0
2011/12	108.0	100.0%	144.0	100.0%	20.0% *	0	0	0	1.00	0
2012/13	96.0	99.5%	132.0	100.0%	20.0% *	0	0	0	1.00	0
2013/14	84.0	98.5%	120.0	100.0%	20.0% *	0	0	0	1.00	0
2014/15	72.0	97.1%	108.0	100.0%	20.0% *	0	0	0	1.00	0
2015/16	60.0	94.7%	96.0	99.5%	20.0% *	0	0	0	0.98	0
2016/17	48.0	90.2%	84.0	98.5%	20.0% *	0	0	0	0.97	0
2017/18	36.0	82.0%	72.0	97.1%	20.0% *	0	0	0	0.96	0
2018/19	24.0	65.6%	60.0	94.7%	20.0% *	65,025	13,005	52,020	0.95	49,211
2019/20	12.0	18.7%	48.0	90.2%	20.0% *	50,000	10,000	40,000	0.94	37,680
2020/21	24.0	65.6%	36.0	82.0%	20.0% *	50,000	10,000	40,000	0.94	37,600
2021/22	12.0	18.7%	24.0	65.6%	20.0% *	100,000	20,000	80,000	0.94	75,200
2022/23	0.0	0.0%	12.0	18.7%	18.7% *	110,044	20,578	89,466	0.95	84,814
Total						$405,924	$79,754	$326,170		$309,189

* - Limited to a maximum of 20% per actuarial judgment.

(3) and (5) are from Exhibit PO-2 (page 1).

(7) to 2021/22 is from Exhibit PO-9. The amount for 2022/23 is from Exhibit PO-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit PO-2 (page 1).

City of Miami Beach, Florida
Public Officials' Liability

Projected Losses Paid October 1, 2023 to September 30, 2024

Claim Period (1)	Months of Development 9/30/23 (2)	Percent Losses Paid (3)	Months of Development 9/30/24 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/23 to 9/30/24 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/23 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/24 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/24 (9)X(10) (11)
1995/96	336.0	100.0%	348.0	100.0%	20.0% *	$0	$0	$0	1.00	$0
1996/97	324.0	100.0%	336.0	100.0%	20.0% *	0	0	0	1.00	0
1997/98	312.0	100.0%	324.0	100.0%	20.0% *	0	0	0	1.00	0
1998/99	300.0	100.0%	312.0	100.0%	20.0% *	0	0	0	1.00	0
1999/00	288.0	100.0%	300.0	100.0%	20.0% *	0	0	0	1.00	0
2000/01	276.0	100.0%	288.0	100.0%	20.0% *	0	0	0	1.00	0
2001/02	264.0	100.0%	276.0	100.0%	20.0% *	0	0	0	1.00	0
2002/03	252.0	100.0%	264.0	100.0%	20.0% *	0	0	0	1.00	0
2003/04	240.0	100.0%	252.0	100.0%	20.0% *	0	0	0	1.00	0
2004/05	228.0	100.0%	240.0	100.0%	20.0% *	0	0	0	1.00	0
2005/06	216.0	100.0%	228.0	100.0%	20.0% *	0	0	0	1.00	0
2006/07	204.0	100.0%	216.0	100.0%	20.0% *	0	0	0	1.00	0
2007/08	192.0	100.0%	204.0	100.0%	20.0% *	0	0	0	1.00	0
2008/09	180.0	100.0%	192.0	100.0%	20.0% *	24,684	4,937	19,747	1.00	19,747
2009/10	168.0	100.0%	180.0	100.0%	20.0% *	0	0	0	1.00	0
2010/11	156.0	100.0%	168.0	100.0%	20.0% *	0	0	0	1.00	0
2011/12	144.0	100.0%	156.0	100.0%	20.0% *	0	0	0	1.00	0
2012/13	132.0	100.0%	144.0	100.0%	20.0% *	0	0	0	1.00	0
2013/14	120.0	100.0%	132.0	100.0%	20.0% *	0	0	0	1.00	0
2014/15	108.0	100.0%	120.0	100.0%	20.0% *	0	0	0	1.00	0
2015/16	96.0	99.5%	108.0	100.0%	20.0% *	0	0	0	1.00	0
2016/17	84.0	98.5%	96.0	99.5%	20.0% *	0	0	0	0.98	0
2017/18	72.0	97.1%	84.0	98.5%	20.0% *	0	0	0	0.97	0
2018/19	60.0	94.7%	72.0	97.1%	20.0% *	52,020	10,404	41,616	0.96	39,743
2019/20	48.0	90.2%	60.0	94.7%	20.0% *	40,000	8,000	32,000	0.95	30,272
2020/21	36.0	82.0%	48.0	90.2%	20.0% *	40,000	8,000	32,000	0.94	30,144
2021/22	24.0	65.6%	36.0	82.0%	20.0% *	80,000	16,000	64,000	0.94	60,160
2022/23	12.0	18.7%	24.0	65.6%	20.0% *	89,466	17,893	71,573	0.94	67,279
2023/24	0.0	0.0%	12.0	18.7%	18.7% *	113,367	21,200	92,167	0.95	87,374
Total						$439,537	$86,434	$353,103		$334,719

* - Limited to a maximum of 20% per actuarial judgment.

(3) and (5) are from Exhibit PO-2 (page 1).

(7) to 2022/23 is from Exhibit PO-11 (page 1), (9). The amount for 2023/24 is from Exhibit PO-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit PO-2 (page 1).

City of Miami Beach, Florida
Public Officials' Liability

Projected Losses Paid October 1, 2024 to September 30, 2025

Claim Period (1)	Months of Development 9/30/24 (2)	Percent Losses Paid (3)	Months of Development 9/30/25 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/24 to 9/30/25 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/24 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/25 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/25 (9)X(10) (11)
1995/96	348.0	100.0%	360.0	100.0%	20.0% *	$0	$0	$0	1.00	$0
1996/97	336.0	100.0%	348.0	100.0%	20.0% *	0	0	0	1.00	0
1997/98	324.0	100.0%	336.0	100.0%	20.0% *	0	0	0	1.00	0
1998/99	312.0	100.0%	324.0	100.0%	20.0% *	0	0	0	1.00	0
1999/00	300.0	100.0%	312.0	100.0%	20.0% *	0	0	0	1.00	0
2000/01	288.0	100.0%	300.0	100.0%	20.0% *	0	0	0	1.00	0
2001/02	276.0	100.0%	288.0	100.0%	20.0% *	0	0	0	1.00	0
2002/03	264.0	100.0%	276.0	100.0%	20.0% *	0	0	0	1.00	0
2003/04	252.0	100.0%	264.0	100.0%	20.0% *	0	0	0	1.00	0
2004/05	240.0	100.0%	252.0	100.0%	20.0% *	0	0	0	1.00	0
2005/06	228.0	100.0%	240.0	100.0%	20.0% *	0	0	0	1.00	0
2006/07	216.0	100.0%	228.0	100.0%	20.0% *	0	0	0	1.00	0
2007/08	204.0	100.0%	216.0	100.0%	20.0% *	0	0	0	1.00	0
2008/09	192.0	100.0%	204.0	100.0%	20.0% *	19,747	3,949	15,798	1.00	15,798
2009/10	180.0	100.0%	192.0	100.0%	20.0% *	0	0	0	1.00	0
2010/11	168.0	100.0%	180.0	100.0%	20.0% *	0	0	0	1.00	0
2011/12	156.0	100.0%	168.0	100.0%	20.0% *	0	0	0	1.00	0
2012/13	144.0	100.0%	156.0	100.0%	20.0% *	0	0	0	1.00	0
2013/14	132.0	100.0%	144.0	100.0%	20.0% *	0	0	0	1.00	0
2014/15	120.0	100.0%	132.0	100.0%	20.0% *	0	0	0	1.00	0
2015/16	108.0	100.0%	120.0	100.0%	20.0% *	0	0	0	1.00	0
2016/17	96.0	99.5%	108.0	100.0%	20.0% *	0	0	0	1.00	0
2017/18	84.0	98.5%	96.0	99.5%	20.0% *	0	0	0	0.98	0
2018/19	72.0	97.1%	84.0	98.5%	20.0% *	41,616	8,323	33,293	0.97	32,228
2019/20	60.0	94.7%	72.0	97.1%	20.0% *	32,000	6,400	25,600	0.96	24,448
2020/21	48.0	90.2%	60.0	94.7%	20.0% *	32,000	6,400	25,600	0.95	24,218
2021/22	36.0	82.0%	48.0	90.2%	20.0% *	64,000	12,800	51,200	0.94	48,230
2022/23	24.0	65.6%	36.0	82.0%	20.0% *	71,573	14,315	57,258	0.94	53,823
2023/24	12.0	18.7%	24.0	65.6%	20.0% *	92,167	18,433	73,734	0.94	69,310
2024/25	0.0	0.0%	12.0	18.7%	18.7% *	116,791	21,840	94,951	0.95	90,014
Total						$469,894	$92,460	$377,434		$358,069

* - Limited to a maximum of 20% per actuarial judgment.

(3) and (5) are from Exhibit PO-2 (page 1).

(7) to 2023/24 is from Exhibit PO-11 (page 2), (9). The amount for 2024/25 is from Exhibit PO-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit PO-2 (page 1).

City of Miami Beach, Florida
Public Officials' Liability

Projected Losses Paid October 1, 2025 to September 30, 2026

Claim Period (1)	Months of Development 9/30/25 (2)	Percent Losses Paid (3)	Months of Development 9/30/26 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/25 to 9/30/26 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/25 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/26 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/26 (9)X(10) (11)
1995/96	360.0	100.0%	372.0	100.0%	20.0% *	$0	$0	$0	1.00	$0
1996/97	348.0	100.0%	360.0	100.0%	20.0% *	0	0	0	1.00	0
1997/98	336.0	100.0%	348.0	100.0%	20.0% *	0	0	0	1.00	0
1998/99	324.0	100.0%	336.0	100.0%	20.0% *	0	0	0	1.00	0
1999/00	312.0	100.0%	324.0	100.0%	20.0% *	0	0	0	1.00	0
2000/01	300.0	100.0%	312.0	100.0%	20.0% *	0	0	0	1.00	0
2001/02	288.0	100.0%	300.0	100.0%	20.0% *	0	0	0	1.00	0
2002/03	276.0	100.0%	288.0	100.0%	20.0% *	0	0	0	1.00	0
2003/04	264.0	100.0%	276.0	100.0%	20.0% *	0	0	0	1.00	0
2004/05	252.0	100.0%	264.0	100.0%	20.0% *	0	0	0	1.00	0
2005/06	240.0	100.0%	252.0	100.0%	20.0% *	0	0	0	1.00	0
2006/07	228.0	100.0%	240.0	100.0%	20.0% *	0	0	0	1.00	0
2007/08	216.0	100.0%	228.0	100.0%	20.0% *	0	0	0	1.00	0
2008/09	204.0	100.0%	216.0	100.0%	20.0% *	15,798	3,160	12,638	1.00	12,638
2009/10	192.0	100.0%	204.0	100.0%	20.0% *	0	0	0	1.00	0
2010/11	180.0	100.0%	192.0	100.0%	20.0% *	0	0	0	1.00	0
2011/12	168.0	100.0%	180.0	100.0%	20.0% *	0	0	0	1.00	0
2012/13	156.0	100.0%	168.0	100.0%	20.0% *	0	0	0	1.00	0
2013/14	144.0	100.0%	156.0	100.0%	20.0% *	0	0	0	1.00	0
2014/15	132.0	100.0%	144.0	100.0%	20.0% *	0	0	0	1.00	0
2015/16	120.0	100.0%	132.0	100.0%	20.0% *	0	0	0	1.00	0
2016/17	108.0	100.0%	120.0	100.0%	20.0% *	0	0	0	1.00	0
2017/18	96.0	99.5%	108.0	100.0%	20.0% *	0	0	0	1.00	0
2018/19	84.0	98.5%	96.0	99.5%	20.0% *	33,293	6,659	26,634	0.98	26,128
2019/20	72.0	97.1%	84.0	98.5%	20.0% *	25,600	5,120	20,480	0.97	19,825
2020/21	60.0	94.7%	72.0	97.1%	20.0% *	25,600	5,120	20,480	0.96	19,558
2021/22	48.0	90.2%	60.0	94.7%	20.0% *	51,200	10,240	40,960	0.95	38,748
2022/23	36.0	82.0%	48.0	90.2%	20.0% *	57,258	11,452	45,806	0.94	43,149
2023/24	24.0	65.6%	36.0	82.0%	20.0% *	73,734	14,747	58,987	0.94	55,448
2024/25	12.0	18.7%	24.0	65.6%	20.0% *	94,951	18,990	75,961	0.94	71,403
2025/26	0.0	0.0%	12.0	18.7%	18.7% *	120,318	22,499	97,819	0.95	92,732
Total						$497,752	$97,987	$399,765		$379,629

* - Limited to a maximum of 20% per actuarial judgment.

(3) and (5) are from Exhibit PO-2 (page 1).

(7) to 2024/25 is from Exhibit PO-11 (page 3), (9). The amount for 2025/26 is from Exhibit PO-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit PO-2 (page 1).

City of Miami Beach, Florida
Public Officials' Liability

Projected Losses Paid October 1, 2026 to September 30, 2027

Claim Period (1)	Months of Development 9/30/26 (2)	Percent Losses Paid (3)	Months of Development 9/30/27 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 10/1/26 to 9/30/27 ((5)-(3))/ (100.0%-(3)) (6)	Estimated Outstanding Losses 9/30/26 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 9/30/27 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 9/30/27 (9)X(10) (11)
1995/96	372.0	100.0%	384.0	100.0%	20.0% *	$0	$0	$0	1.00	$0
1996/97	360.0	100.0%	372.0	100.0%	20.0% *	0	0	0	1.00	0
1997/98	348.0	100.0%	360.0	100.0%	20.0% *	0	0	0	1.00	0
1998/99	336.0	100.0%	348.0	100.0%	20.0% *	0	0	0	1.00	0
1999/00	324.0	100.0%	336.0	100.0%	20.0% *	0	0	0	1.00	0
2000/01	312.0	100.0%	324.0	100.0%	20.0% *	0	0	0	1.00	0
2001/02	300.0	100.0%	312.0	100.0%	20.0% *	0	0	0	1.00	0
2002/03	288.0	100.0%	300.0	100.0%	20.0% *	0	0	0	1.00	0
2003/04	276.0	100.0%	288.0	100.0%	20.0% *	0	0	0	1.00	0
2004/05	264.0	100.0%	276.0	100.0%	20.0% *	0	0	0	1.00	0
2005/06	252.0	100.0%	264.0	100.0%	20.0% *	0	0	0	1.00	0
2006/07	240.0	100.0%	252.0	100.0%	20.0% *	0	0	0	1.00	0
2007/08	228.0	100.0%	240.0	100.0%	20.0% *	0	0	0	1.00	0
2008/09	216.0	100.0%	228.0	100.0%	20.0% *	12,638	2,528	10,110	1.00	10,110
2009/10	204.0	100.0%	216.0	100.0%	20.0% *	0	0	0	1.00	0
2010/11	192.0	100.0%	204.0	100.0%	20.0% *	0	0	0	1.00	0
2011/12	180.0	100.0%	192.0	100.0%	20.0% *	0	0	0	1.00	0
2012/13	168.0	100.0%	180.0	100.0%	20.0% *	0	0	0	1.00	0
2013/14	156.0	100.0%	168.0	100.0%	20.0% *	0	0	0	1.00	0
2014/15	144.0	100.0%	156.0	100.0%	20.0% *	0	0	0	1.00	0
2015/16	132.0	100.0%	144.0	100.0%	20.0% *	0	0	0	1.00	0
2016/17	120.0	100.0%	132.0	100.0%	20.0% *	0	0	0	1.00	0
2017/18	108.0	100.0%	120.0	100.0%	20.0% *	0	0	0	1.00	0
2018/19	96.0	99.5%	108.0	100.0%	20.0% *	26,634	5,327	21,307	1.00	21,307
2019/20	84.0	98.5%	96.0	99.5%	20.0% *	20,480	4,096	16,384	0.98	16,073
2020/21	72.0	97.1%	84.0	98.5%	20.0% *	20,480	4,096	16,384	0.97	15,860
2021/22	60.0	94.7%	72.0	97.1%	20.0% *	40,960	8,192	32,768	0.96	31,293
2022/23	48.0	90.2%	60.0	94.7%	20.0% *	45,806	9,161	36,645	0.95	34,666
2023/24	36.0	82.0%	48.0	90.2%	20.0% *	58,987	11,797	47,190	0.94	44,453
2024/25	24.0	65.6%	36.0	82.0%	20.0% *	75,961	15,192	60,769	0.94	57,123
2025/26	12.0	18.7%	24.0	65.6%	20.0% *	97,819	19,564	78,255	0.94	73,560
2026/27	0.0	0.0%	12.0	18.7%	18.7% *	123,952	23,179	100,773	0.95	95,533
Total						$523,717	$103,132	$420,585		$399,978

* - Limited to a maximum of 20% per actuarial judgment.

(3) and (5) are from Exhibit PO-2 (page 1).

(7) to 2025/26 is from Exhibit PO-11 (page 4), (9). The amount for 2026/27 is from Exhibit PO-8.

(10) is based on a 4% interest rate and the payout pattern in Exhibit PO-2 (page 1).

City of Miami Beach, Florida
Public Officials' Liability

Loss Rate and Severity Trend

Claim Period (1)	Legislative Trend (2022/23 = 1.000) (2)	Residual Trend (2022/23 = 1.000) (3)	Retention Index (2022/23 = 1.000) (4)	Loss Rate Trend (2022/23 = 1.000) (2)X(3)X(4) (5)	Exposure Trend (2022/23 = 1.000) (6)	Severity Trend (2022/23 = 1.000) (5)X(6) (7)
2017/18	1.000	1.051	1.000	1.051	1.104	1.160
2018/19	1.000	1.041	1.000	1.041	1.082	1.126
2019/20	1.000	1.030	1.000	1.030	1.061	1.093
2020/21	1.000	1.020	1.000	1.020	1.040	1.061
2021/22	1.000	1.010	1.000	1.010	1.020	1.030
2022/23	1.000	1.000	1.000	1.000	1.000	1.000
2023/24	1.000	0.990	1.000	0.990	0.980	0.971
2024/25	1.000	0.980	1.000	0.980	0.961	0.942
2025/26	1.000	0.971	1.000	0.971	0.942	0.915
2026/27	1.000	0.961	1.000	0.961	0.924	0.888

(2) is based on industry statistics and actuarial judgment.

(3) is based on 1% trend per actuarial judgment.

(4) is based on industry statistics and actuarial judgment.

(6) is based on 2% trend.

Exhibit 4

OFFICE OF THE CITY ATTORNEY

City of Miami Beach

F L O R I D A

RAFAEL A. PAZ
City Attorney

Telephone: (305) 673-7470
Facsimile: (305) 673-7002

January 27, 2023

Via e-Mail: Alex.Auguste@rsmus.com

RSM US LLP
801 Brickell Avenue, Suite 1050
Miami, FL 33131

Re: City of Miami Beach - Financial Statements Audit, period ending September 30, 2022

Dear Mr. Auguste:

This letter is my response to your request to provide you (RSM US LLP) with certain information involving the matters with respect to which we have been engaged and to which we have devoted substantive attention on behalf of the City in the form of legal consultation or representation as of the date of this letter.

As City Attorney, I have general supervision over the City's legal affairs. However, some of the City's litigation is handled by outside counsel and we have been advised that such outside counsel have been requested to provide you with audit letters regarding the litigation that they handle. Reliance should be placed on such outside counsels' response with respect to the litigation handled by them.

Pending or Threatened Litigation

We are aware of no pending or threatened litigation claims and assessments (excluding unasserted claims and assessments) involving operations of the City considered by the management of the City to be "material" which is defined to include terms involving matter in excess of $1,000,000, except the following:

1. **Chakra 5, Inc. 1501 Ocean Drive, LLC and Haim Turgman v. CMB, et al**

The owner of Chakra 5 Lounge, which was the location of the FBI sting that resulted in the termination, arrest, and conviction of City employees for soliciting bribes in exchange for ignoring code violations, is the plaintiff in this case, along with his related corporate entities. He alleges that the City had a policy of accepting bribes and taking property without provided due process. The City was granted Summary Judgment in its favor, and this matter was appealed. The intermediate appellate court has affirmed the lower court ruling, but as of the date of this letter, the deadline to seek further appellate review has not yet elapsed.

2. Jared McGriff, et al. v. City of Miami Beach, Mayor Gelber, Jimmy Morales

The plaintiff has sued the City and has alleged a cause of action under the First Amendment. The complaint is based on the City's decision not to display an art installation at the ReFrame Miami Beach festival during Memorial Day weekend 2019. The City was granted Summary Judgment in its favor, and this matter is on appeal.

3. Jamie Senko v. City of Miami Beach

The plaintiff sued the City and alleged a cause of action pursuant to Section 1983 and 1988 against the City of Miami Beach Police Department (MBPD). The nature of action arises from an alleged unlawful deprivation of the plaintiff's rights. The City and officers have filed a motion for summary judgment. The trial is set for the period commencing 5/23/22. The City was granted Summary Judgment in its favor, and this matter is on appeal.

4. Greg Mirmelli v. The City of Miami Beach

On August 24, 2018, the plaintiff served the above-subject lawsuit upon the City of Miami Beach. The plaintiff is attempting to challenge the constitutional and statutory validity of the City's short-term rental ordinances, which prohibit transient rentals throughout certain zoning districts within the City, and the City's enforcement policies of those ordinances on several legal grounds. Specifically, the plaintiff is alleging: (1) violation of his equal protection rights under Florida and U.S. Constitutions, (2) violation of Florida's antitrust laws, (3) violation of the Dormant Commerce clause, (4) violation of the Florida and Federal takings clause, and (5) violation of Section 162.09(2)(d) of Florida Statutes based on Florida statutory preemption.

This matter is being handled by outside counsel.

5. Natalie Nichols v. City of Miami Beach, Dan Gelber, Micky Steinberg, Mark Samuelian, Michael Gongora, Kristen Rosen Gonzalez, Ricky Arriola and John Elizabeth Aleman

On July 18, 2018, the plaintiff served the above-subject lawsuit upon the City of Miami Beach and specifically identified each individual Commissioner as a Defendant in this matter. The plaintiff attempts to challenge the constitutionality and statutory validity of the City's short-term rental ordinances that prohibit transient rentals throughout certain zoning districts within the City of Miami Beach. More specifically, the plaintiff seeks to challenge Section § 142-905(b)(5) and § 142-1111 of the Miami Beach City Code, by alleging that the City's Code of Laws and Ordinances violate the plaintiff's equal protection rights and that the penalty provisions constitute excessive punishment. In further allegations of the lawsuit, the plaintiff is seeking to establish that the City's laws are preempted by the State of Florida.

This matter is being handled by outside counsel.

6. Rajeev Ramsinghani v. Ric-Man International, Inc. and City of Miami Beach

The plaintiff, Rajeev Ramsinghani, filed a lawsuit against the City and the City's Contractor, Ric-Man International, Inc. ("Ric-Man"). The lawsuit relates to alleged structural damages sustained as a result of the City's installation of stormwater pumps installed in close proximity to the plaintiff's

property. The plaintiff has alleged counts of Negligence, Gross Negligence, and Nuisance against the City. The City tendered this claim to Ric-Man, based on Ric-Man's contractual indemnity and defense obligations pursuant to the construction agreement. A court-ordered Mediation Conference was conducted and this case is now settled with no payment by the City of Miami Beach. The Court has entered a final order of dismissal and closed the case.

7. **Juan A. Garcia, Jr. et al. v. Florida Department of Environmental Protection, City of Miami Beach et al.**

This is a third-party complaint for Declaratory Judgment, Contractual Indemnity, and Common Law Indemnity brought by the State against the City of Miami Beach relating to a pending lawsuit for negligence. In the negligence suit, the plaintiff claimed that on February 1, 1989, the plaintiff dove off a City-operated pier and struck construction debris left by City contractors resulting in catastrophic injuries. The State-owned the area in question and entered into an agreement with the City to operate and manage the property. The City settled the claims against it for $1.25 million over twenty-five years ago. The suit has continued, however, against the State. The State claims that the City executed permits and agreements which obligated the City to indemnify the State from this type of claim.
In the unlikely event that the plaintiff would prevail, a judgment for damages, attorneys' fees, and costs could exceed $1,000,000.

8. **Manuel Menendez as Personal Representative of the Estate of Raul Menendez, Deceased vs. Tm Yachting Charter LLC, a Florida limited liability company, Laurent Marc-Antoine Jean Maubert-Cayla; Mauricio Alvarez; Miami-Dade County, a political subdivision of the State of Florida; and, the City Of Miami Beach**

This is an action for wrongful death by the Estate of Raul Menendez. Mr. Menendez was killed in a boating accident off of Monument Island on April 1, 2018. The plaintiff claims that the City and County were negligent in operating facilities on Monument Island. After a motion to dismiss based on sovereign immunity was denied, the City of Miami Beach filed an appeal. That appeal is now pending.

In the unlikely event that the plaintiff would prevail, a judgment for damages, attorneys' fees, and costs could exceed $1,000,000. In order for Plaintiff to obtain any amount in excess of $300,000, however, Plaintiff would need to win all appeals taken and obtain a claim bill from the legislature.

9. **Nine Island Avenue et al. v. City of Miami Beach and Setai et al. v. City of Miami Beach**

These are actions brought on behalf of twenty-five entities that own or control multi-family residential, commercial or condominium real property in Miami Beach. The plaintiffs are asserting claims for Declaratory Relief and Restitution of alleged overpayments of the City's stormwater utility fee. The plaintiffs claim that the stormwater utility fee is arbitrary, unreasonable and discriminatory, and therefore illegal. The City has answered the Complaint. The parties are currently awaiting the ruling in a substantially similar case against the Town of Surfside. There is no trial date.

In the unlikely event that the plaintiff would prevail, a judgment for damages, attorneys' fees, and costs could exceed $1,000,000.

10. Honeywell International, Inc. v. Clark Construction Group et al and the City of Miami Beach

This is an action by a subcontractor on a construction project by Clark Construction Group, LLC relating to the Miami Beach Convention Center against the City of Miami Beach for damages relating to work done by Plaintiff. At bottom, this is a dispute between Clark Construction Group, LLC and Honeywell International, Inc. over how to allocate the proceeds from a $35 million settlement between Clark and the City, and whether the City should be required to indemnify Honeywell for damages, attorney fees and costs incurred by Honeywell in its dispute with Clark. The case has been unsuccessfully mediated. A second amended complaint was filed on December 15, 2022, and the City has counter- and cross-claimed for declaratory and injunctive relief. The case is proceeding with discovery and there is a pending motion to dismiss the City's cross-claim as well as a pending motion for partial summary judgment on several key issues in the complaint.

In the unlikely event that the plaintiff would prevail, a judgment for damages and costs could exceed $1,000,000.

11. Varcamp Properties LLC et al v. City of Miami Beach I and Varcamp Properties LLC et al. v. City of Miami Beach II

These are two related actions filed by property owners claiming that street elevation adjoining the relevant properties has caused flooding which has damaged structures and created current and future economic losses. The first action is in federal court and seeks damages for alleged negligence and inverse condemnation under both the Florida and United States Constitutions. The second action is in state court and it is brought pursuant to the Bert J. Harris Act, which provides relief for property owners when governmental action unduly burdens the property interests of private property owners.

Both of these cases are currently at early stages. The federal case is awaiting a ruling on a motion to dismiss. No response has yet been filed in the state case.

In the unlikely event that the plaintiff would prevail, a judgment for damages and costs could exceed $1,000,000.

12. Congregation 3401 Prairie Bais D'Kerestir, Inc. and Rabbi Arie Wohl v. City of Miami Beach

This is an action for damages and injunctive relief brought by a Rabbi and a Synagogue claiming religious discrimination under 42 U.S.C. § 1983. The City has counterclaimed for declaratory and injunctive relief. The case is still in the discovery phase. The case is set for trial during the two week period commencing May 8, 2023.

In the unlikely event that the plaintiff would prevail, a judgment for damages, attorney fees and costs could exceed $1,000,000.

This matter is being handled by outside counsel.

13. The Estate of Peniel Janvier adv. The City of Miami Beach

The City of Miami Beach has been put on notice by attorneys for the Estate of Peniel Janvier of a claim for negligence relating to the drowning death of Peniel Janvier in August 2022. Suit has not yet been filed. In the unlikely event that the plaintiff would prevail, a judgment for damages, attorneys' fees, and costs could exceed $1,000,000. In order for Plaintiff to obtain any amount in excess of $300,000, however, Plaintiff would need to win all appeals taken and obtain a claim bill from the legislature.

14. Jonathan Hall adv. The City of Miami Beach

The City of Miami Beach has been put on notice by attorneys for Jonathan Hall of a claim for damages relating to an alleged wrongful shooting of Jonathan Hall at the Fritz Hotel on March 14, 2020. Suit has not yet been filed. In the unlikely event that the plaintiff asserts state-law claims and would prevail, a judgment for damages, attorneys' fees, and costs could exceed $1,000,000. In order for Plaintiff to obtain any amount in excess of $200,000 for a state claim, however, Plaintiff would need to win all appeals taken and obtain a claim bill from the legislature. If, however, he makes a federal claim, Plaintiff could obtain a collectable judgement in excess of $1,000,000.

Very truly yours,

Rafael A. Paz
City Attorney

RAP/ag
cc: Vyomie Greene, Assistant Finance Director