2019 Washington Street, East
Charleston, WV 25305
Telephone: 304-558-2306
General Fax: 304-558-6026
Bid Fax: 304-558-3970

The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at *wvOASIS.gov*. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at *WVPurchasing.gov* with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

wvOASIS

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Welcome, Alisha S Pettit

Procurement | Budgeting | Accounts Receivable | Accounts Payable

**Solicitation Response(SR)** Dept: 1300 ID: ESR03032100000005996 Ver.: 1 Function: New Phase: Final

Modified by batch , 03/03/2021

**Header** 1

List View

**General Information** | Contact | Default Values | Discount | Document Information | Clarification Request

| | | | |
|---|---|---|---|
| **Procurement Folder:** | 836406 | **SO Doc Code:** | CRFQ |
| **Procurement Type:** | Central Contract - Fixed Amt | **SO Dept:** | 1300 |
| **Vendor ID:** | VS0000000373 | **SO Doc ID:** | STO2100000003 |
| **Legal Name:** | TAYLOR & MULDER INC | **Published Date:** | 2/23/21 |
| **Alias/DBA:** | | **Close Date:** | 3/3/21 |
| **Total Bid:** | $16,500.00 | **Close Time:** | 13:30 |
| **Response Date:** | 03/03/2021 | **Status:** | Closed |
| **Response Time:** | 11:39 | **Solicitation Description:** | Actuarial Services for Unclaimed Property |
| **Responded By User ID:** | taylorandmulder | | |
| **First Name:** | Daniel | **Total of Header Attachments:** | 1 |
| **Last Name:** | Lupton | **Total of All Attachments:** | 1 |
| **Email:** | dlupton@taylorandmulder.co | | |
| **Phone:** | 3019569199 | | |

Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

# State of West Virginia
# Solicitation Response

**Proc Folder:** 836406

**Solicitation Description:** Actuarial Services for Unclaimed Property

**Proc Type:** Central Contract - Fixed Amt

| Solicitation Closes | Solicitation Response | Version |
|---|---|---|
| 2021-03-03 13:30 | SR 1300 ESR03032100000005996 | 1 |

**VENDOR**

VS0000000373
TAYLOR & MULDER INC

**Solicitation Number:** CRFQ 1300 STO2100000003

**Total Bid:** 16500 **Response Date:** 2021-03-03 **Response Time:** 11:39:10

**Comments:**

**FOR INFORMATION CONTACT THE BUYER**
Melissa Pettrey
(304) 558-0094
melissa.k.pettrey@wv.gov

**Vendor**
**Signature X** **FEIN#** **DATE**

**All offers subject to all terms and conditions contained in this solicitation**

| Line | Comm Ln Desc | Qty | Unit Issue | Unit Price | Ln Total Or Contract Amount |
|---|---|---|---|---|---|
| 2 | Actuarial consulting services | 1.00000 | YR | 14000.000000 | 14000.00 |

| Comm Code | Manufacturer | Specification | Model # |
|---|---|---|---|
| 80101512 | | | |

**Commodity Line Comments:** Deliverables will be completed to comply with the schedule in section 4.1.1 in the Specifications section of the RFQ.

**Extended Description:**

Year 1: Final Actuarial Report (Section 4.1.2.8 of the specifications)

| Line | Comm Ln Desc | Qty | Unit Issue | Unit Price | Ln Total Or Contract Amount |
|---|---|---|---|---|---|
| 3 | Actuarial consulting services | 10.00000 | HOUR | 250.000000 | 2500.00 |

| Comm Code | Manufacturer | Specification | Model # |
|---|---|---|---|
| 80101512 | | | |

**Commodity Line Comments:** We will work with the STO to determine a delivery date for each project as they arise. The unit price of $250 is per hour of work on additional duties as specified in Section 4.1.6.a.

**Extended Description:**

Additional Duties as specified in Section 4.1.6.a of the Specifications

Taylor & Mulder

Property and Casualty Consulting Actuaries

# Taylor & Mulder, Inc.
# Proposal to Provide Actuarial Services for Unclaimed Property
# West Virginia State Treasurer's Office
# CRFQ STO2100000003

March 2021

10508 Rivers Bend Lane, Potomac, MD 20854 t (301) 365-4800 f (301) 36 5-4882 e contact@taylorandmulder.com w taylorandmulder.com

Taylor&Mulder
Property and Casualty Consulting Actuaries

10508 Rivers Bend Lane,
Potomac, MD 20854

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March 3, 2021

Ms. Melissa Pettrey
Senior Buyer
Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305

Dear Ms. Pettrey,

Please find enclosed our proposal to provide actuarial consulting services to the West Virginia State Treasurer's Office Unclaimed Property Fund ("the Fund"). Taylor & Mulder would be pleased to provide the actuarial services outlined in the solicitation. This is true, in fact, for several reasons:

- The West Virginia Department of Environmental Quality Office of Special Reclamation has engaged Taylor & Mulder to perform an actuarial analysis of the Special Reclamation Fund, every other year for the next five evaluations.
- We have experience providing actuarial services in support of various governmental funds, on both a Federal and State level.
- We have extensive experience in providing actuarial services to niche funds; such as the Army Central Insurance Fund, underground and above ground storage tank funds and coal reclamation funds, for example.
- The actuaries assigned to this project have over 50 years' combined experience in the insurance industry.
- We have been serving the needs of governmental and quasi-governmental agencies at the federal, state, and local levels for over 20 years.

We would like to thank you for the opportunity to present our qualifications to the Fund. Should you wish to discuss any items contained in this response, please do not hesitate to call me at (301) 956-9199.

Sincerely,

Daniel W. Lupton, FCAS, MAAA, CSPA, MBA

# Taylor & Mulder, Inc.
# Proposal to Provide Actuarial Services for Unclaimed Property
# West Virginia State Treasurer's Office
# CRFQ STO2100000003

## Contents

## Introduction

Taylor & Mulder, Inc. is a woman-owned property & casualty actuarial consulting firm. We offer complete actuarial solutions, including loss and loss adjustment expense reserve analysis, cost and capital allocation, premium adequacy and rate analysis, and excess insurance or reinsurance analysis. We have offices outside of Washington, DC, as well as Minneapolis/Saint Paul and Jefferson City.

Taylor & Mulder prides itself on the quality of its work. This commitment to quality informs our process, which has been developed since Taylor & Mulder was incorporated in 1998 and has been demonstrated in analyses Taylor & Mulder has prepared for other State of West Virginia Departments.

At Taylor & Mulder, each work product is different, and analyses are always undertaken with the utmost consideration of the client's needs and the data available. However, work products are prepared to be consistent with our high standards for:

1. Comprehensibility of deliverables
2. Accuracy of results
3. Appropriateness of findings and recommendations
4. Quality and consistency of data
5. Peer review

## Our Actuaries

Our team of actuarial consultants assigned to this project includes:

**Daniel Lupton**, FCAS, MAAA, CSPA, MBA – Mr. Lupton, Vice President of Taylor & Mulder, will be project manager for this project. Mr. Lupton will be responsible for attending meetings, clarifying data received, and conducting the actuarial analysis. The final responsibility for sign off on the report will rest with Mr. Lupton.

**Evelyn Toni Mulder**, FCAS, MAAA, FCA – Ms. Mulder, the President of Taylor & Mulder, will peer review the analysis and assist in writing the report. The responsibility for the final thorough peer review will rest with Ms. Mulder.

**Bobby Jaegers**, ACAS, MAAA – Mr. Jaegers will be responsible for inputting data, data manipulation, exploratory data analysis, and assisting with advanced programming tasks. Mr. Jaegers will be a consultant on this project.

Our actuaries have over 50 years' combined experience, including direct experience with specialty insurance funds. Resumes for our actuaries are included following this proposal as **Appendix A**. These actuaries' relevant experience is included in the following section.

## Experience

The actuaries assigned to this project have provided analyses of many insurers and self-insurers over the course of their careers. Some of the entities for which we have provided services include:

- ***West Virginia Department of Environmental Protection***
- United States Army Central Insurance Fund
- Missouri Petroleum Storage Tank Insurance Fund
- Arizona Department of Environmental Quality
- Iowa Underground Storage Tank Fund
- Washington Pollution Liability Insurance Agency
- Montana Department of Environmental Quality
- South Dakota Petroleum Release Compensation Fund
- State of Virginia
- State of Maryland
- State of South Dakota
- State of California Insurance Department
- State of Kentucky Insurance Department
- State of Kansas Insurance Department
- State of Hawaii Insurance Department
- State of Arkansas Insurance Department
- State of Pennsylvania Insurance Department
- State of North Carolina Insurance Department
- State of Missouri Insurance Department
- State of Massachusetts Insurance Department
- State of Nevada Insurance Department
- State of West Virginia Insurance Department
- State of Maryland Office of the Attorney General
- Harford County
- Anne Arundel County
- Fairfax County
- Baltimore County
- Montgomery County
- City of Portsmouth
- City of Portsmouth School Districts
- City of Philadelphia
- City of Durham
- City of Baltimore
- City of Hampton
- City of Hampton Schools
- Philadelphia Parking Authority
- Amtrak
- Union Pacific Railroad
- Virginia Transit Liability Pool
- Bergeron Land Development
- American National Insurance Company
- The Washington Post Company
- George Washington University Medical Center
- Washington Hospital Center in DC
- Columbia Hospital for Women
- Sibley Hospital
- Children's Hospital in DC
- National Rehabilitation Center
- York Hospital
- Charleston Area Medical Center.
- National Association of Social Workers Insurance Company
- National Association of Social Workers Risk Retention Group

The following represents a sampling of our experience in providing services to both large and small public and corporate entities:

**Client:** **West Virginia Department of Environmental Quality Office of Special Reclamation**

**Summary:** Actuarial Reserve Study and Financial Projections

**Details:** Taylor & Mulder recently completed the biannual actuarial study related to liabilities arising from mine reclamation in West Virginia. The purpose of this project was to perform an actuarial evaluation of fund assets and liabilities in both the near and long terms, including an analysis by geography and by type of mine (surface versus underground), an analysis of the rate of bond forfeitures that lead to mine reclamation liabilities, and projections of future coal production from different types of mines in West Virginia. In addition, we projected water and land reclamation liabilities separately.

**Client:** **United States Army Central Insurance Fund**
**Summary:** Annual Loss Reserve and Funding Analysis and Rate Study
**Details:** The United States Army self-insures buildings, contents, vehicles, fidelity bonding, money and securities, aircraft, cargo, workers' compensation, and tort coverages for approximately 29,000 employees across multiple continents. Taylor & Mulder performs annual evaluations for the Fund including recommended reserve levels, fund balances, and rates to be charged internally for each of the coverages.

**Client:** **Ohio Reclamation Forfeiture Fund**
**Summary:** Annual Loss Reserve and Funding Analysis
**Details:** Taylor & Mulder performs an annual actuarial analysis of the Ohio Reclamation Forfeiture Fund. This analysis focuses on the fiscal soundness of the fund and estimates of the future liabilities and future balances of the fund. To determine the future assets of the fund, we review the bonding structure and provide recommendations to the Board.

**Client:** **Arizona Department of Environmental Quality**
**Summary:** Actuarial Reserve Study and Financial Projections
**Details:** Taylor & Mulder has completed several actuarial studies for underground storage tanks program of the Arizona Department of Environmental Quality ("the AZDEQ"). The first major study involved on performing a financial analysis of the department's underground storage tank corrective action program under a variety of proposed scenarios for the future run-off of liabilities or the future operation of the fund should it be restarted. This project included the construction of a model capable of projecting financial outcomes based on a variety of scenarios and inputs, including:

- Cleanup of petroleum spills to a variety of standards, either Tier 1 standards or alternative cleanup standards,
- Cleanup of a variety of sites identified over different timeframes,
- Costs associated with different approaches to baseline assessments, e.g. the cost of ten vertical borings per site versus two angle borings and four vertical borings, etc.,
- Cost of corrective actions associated with releases identified through baseline assessments,
- Cost of removal of USTs and costs associated with releases identified through removal; and,
- Application of deductibles of varying sizes to (a) corrective actions, (b) baseline assessments, and (c) removal of USTs.

This analysis was used to produce financial projections of administrative costs and losses associated with various options for operation of the AZDEQ fund in the future.

Following this project, we assisted the AZDEQ in analyzing the strategic and financial impact of various ways of structuring a future UST program in the state.

This project culminated in assisting the AZDEQ in developing draft legislation for the future of the program.

In subsequent periods, we have conducted updated analyses to assist in guiding decision making as the AZDEQ continues to roll out the revised UST program. We continue to assist the AZDEQ with determining funding requirements for the new program and providing miscellaneous actuarial services as needed.

**Client:** **Montana Petroleum Tank Release Compensation Board**
**Summary:** Actuarial Reserve Study and Financial Projections
**Details:** The Montana Petroleum Release Compensation Fund assists in remediating pollution related to the use of petroleum products in Montana. In 2015, the US EPA provided the results of a Tier II soundness assessment of the Fund. Among other things, this assessment recommended that an independent actuarial review should be performed for the Fund.

This actuarial study included a comprehensive review of claim history to the fund, estimation of anticipated liabilities related to known releases, financial projections for the next ten years, and assessments of anticipated long-run average cost of remediation for different types of releases and different remediation methods.

**Client:** **Missouri Petroleum Storage Tank Insurance Fund**
**Summary:** Actuarial Reserve Study and Financial Projections
**Details:** Taylor & Mulder performs annual actuarial analyses for the Missouri Petroleum Storage Tank Insurance Fund ("the PSTIF"). This includes an analysis of self-insured liabilities pertaining to underground and aboveground petroleum storage tanks, including analysis of loss and loss adjustment expense reserve adequacy, reserving practices for the fund, underwriting practices, projection of loss and loss adjustment expenses, claim severity, and claim frequency, cash flow analysis, and special analysis of large loss claims.

This project began with a review of claims data from the PSTIF. This involved an analysis of potential errors in loss runs provided by the PSTIF, as well as an on-site visit, review of claims practices, discussions with PSTIF personnel, review of claim files, and general discussion about the management and direction of the fund and the particular needs of the PSTIF. Following this, we performed a detailed analysis, including review of the ultimate cost for both known and unknown claims by type (including UST losses, AST losses, and remedial claims at abandoned tank sites).

The project culminated with financial projections of the solvency position of the fund over the remaining lifetime of the fund, including projections of revenues expenses, based on a variety of scenarios. We analyzed over 10,000 unique scenarios and provided the PSTIF a customized report describing the likelihood of various financial outcomes. Following this, we presented the report to the PSTIF Board of Directors.

**Client:** **Iowa Comprehensive Petroleum Underground Storage Tank Fund**
**Summary:** Actuarial Reserve Study and Financial Projections
**Details:** The Iowa Comprehensive Petroleum Underground Storage Tank Fund ("the Fund") was established in Iowa to assist owners and operators of petroleum storage tanks in complying with federal EPA technical and financial responsibility regulations. Taylor & Mulder recently completed a project providing actuarial reserve estimates and financial projections to the Fund in anticipation of potential sunset of the Fund. This analysis included a review and opinion on the adequacy of current case reserves as well as current reserving practices. We were also asked to provide recommendations for improvements.

In addition, we were asked to project future claim liabilities, including providing an opinion on frequency and severity of a variety of claim types. We also provided an analysis of large losses, including the history of large losses (losses in excess of $250,000) in the state and the anticipated impact of large losses on the fund's future finances.

Centrally, this project required projections of the Fund's financial position in each of the next five fiscal years. This financial projection is used to assist the Fund's Board of Directors in making sound decisions regarding the potential sunset of the fund and future operations of the fund.

**Client:** **Washington Pollution Liability Insurance Agency**
**Summary:** Actuarial Reserve Study and Financial Projections
**Details:** The Washington Pollution Liability Insurance Agency ("PLIA") is somewhat unique among state funds by acting as a reinsurance mechanism for underground storage tank insurance providers in the state. Taylor & Mulder provided actuarial services to the PLIA as part of an extensive review of the program, including reserve projections, tank demographic trend analyses, complete review of claims practices and risks to the fund, and a review of premiums charged by insurance companies in the state that make use of the PLIA's reinsurance mechanism.

**Client:** **South Dakota Petroleum Release Compensation Fund**
**Summary:** Actuarial Reserve Study and Financial Projections
**Details:** In mid-2018, the South Dakota Petroleum Release Compensation Fund requested us to perform a broad review of the PRCF's program. This actuarial study included a review and opinion on current claim reserves for the PRCF, an analysis of current liabilities associated with unreported pollution in the state, a projection of future anticipated claim liabilities, financial projections, and an analysis of large loss claims.

This review had particular focus on long-term anticipated average claim severities and the primary determiners of claim severity. Based on the data provided, it was determined that releases at non-abandoned sites had significantly higher remediation costs than releases detected at abandoned sites, and certain causes of loss had consistently higher claim sizes than others.

**Client:** **City of Hampton, Virginia, and Hampton City Schools**
**Summary:** Annual Loss Reserve Projection and Financial Projections
**Details:** The City of Hampton, Virginia has a population of approximately 137,000 residents, and is the home of the first free public school in America. Taylor & Mulder performs annual valuations of the City and School District's self-insurance program, which covers exposures for workers' compensation, general liability, automobile liability, public officials' liability and law enforcement liability. This ongoing study includes: (a) evaluation of loss experience, (b) projection of required reserve levels, including reserve estimates at 70%, 80%, and 90% confidence levels, (c) projection of claims cash flow for the next five fiscal years, (d) recommended funding guidelines for the next five years, and (e) recommendations concerning cost allocations and reserve funding contributions. All of these analyses are summarized in a detailed report that includes specific recommendations for the City and Schools separately.

**Client:** **Philadelphia Parking Authority**
**Summary:** Annual Loss Reserve Projection and Financial Projections
**Details:** The Philadelphia Parking Authority provides parking management and related services to the fifth largest city in the United States. The Authority self-insures its automobile liability, workers' compensation, and general liability exposures. Taylor & Mulder provides the Authority with annual evaluations that include: (a) analysis of loss and ALAE reserves net and gross of self-insured retentions, (b) confidence levels and actuarial high and low estimates of ultimate losses, and (c) discounting based on expected investment income.

**Client:** **State of California Department of Insurance**
**Summary:** Rate Filing Model Review Services
**Details:** The California Department of Insurance employs numerous actuaries that review most aspects of rate filings submitted in the state. However, when rate filings make use of sophisticated statistical models that are beyond the expertise of the actuaries employed by the state, Taylor & Mulder provides reviews of these models. This includes rate filings that make use of sophisticated statistical models such as generalized linear models, tiering models, clustering techniques, and special catastrophe models, among other model types. Our efforts have resulted in the removal of several variables from models that were deemed to result in unfairly discriminatory rates.

**Client:** **Kentucky Insurance Department**
**Summary:** Risk-Focused Financial Examinations and Rate Filing Reviews
**Details:** Taylor & Mulder provides general actuarial services to the Kentucky Insurance Department in support of rate filing reviews and risk-focused financial examinations.

As a recent example of exam services, we conducted an evaluation of Kentucky National Insurance Company, an insurer writing private passenger automobile liability, homeowners, dwelling fire and allied lines, inland marine, commercial automobile, umbrella, and credit insurance. Our financial examination included conducting interviews with the company's independent actuary, compliance director, and CFO. In addition, we assisted in identifying inherent risks, risk mitigation strategies and controls, and testing areas with high residual risk.

We have also performed reviews of over 75 rate filings in the state. Rate filing reviews have run the gamut from large rating organizations to small private insurance companies. We have reviewed standard filings for rate increases as well as complex models or cutting-edge products.

**Client:** **Commonwealth of Pennsylvania Insurance Department**
**Summary:** Risk-Focused Financial Examinations, Liquidations, and Other Projects
**Details:** Taylor & Mulder is contracted by the Commonwealth of Pennsylvania Insurance Department to perform a variety of services, including risk-focused financial examinations, evaluation of liquidations and rehabilitations, and other miscellaneous projects as needed. Within the Department, we have provided services for the Office of Corporate and Financial Regulation Bureau of Financial Examinations and the Office of Liquidations and Rehabilitations. The following is a sampling of some of the projects we have performed for the Department:

We recently completed a project to evaluate the health of Laundry Owners' Mutual Liability Association, a workers' compensation insurer in the state. Our analysis included a review of reserve adequacy, premium deficiency reserve calculations, rate adequacy, and reinsurance retentions and cessions.

Taylor & Mulder provided actuarial services in connection with the financial examination of three medical professional liability insurers in the state: Millennium Insurance Company, Pennsylvania Medical Reinsurance Company and Professional Casualty Association. Our analyses included reviews of loss and loss adjustment expense reserves, reviews of the work of the company's independent actuary, tests of unearned premium reserves, reviews of the reinsurance programs, comments on long-term rate adequacy, and reviews the risk concentration by medical specialty.

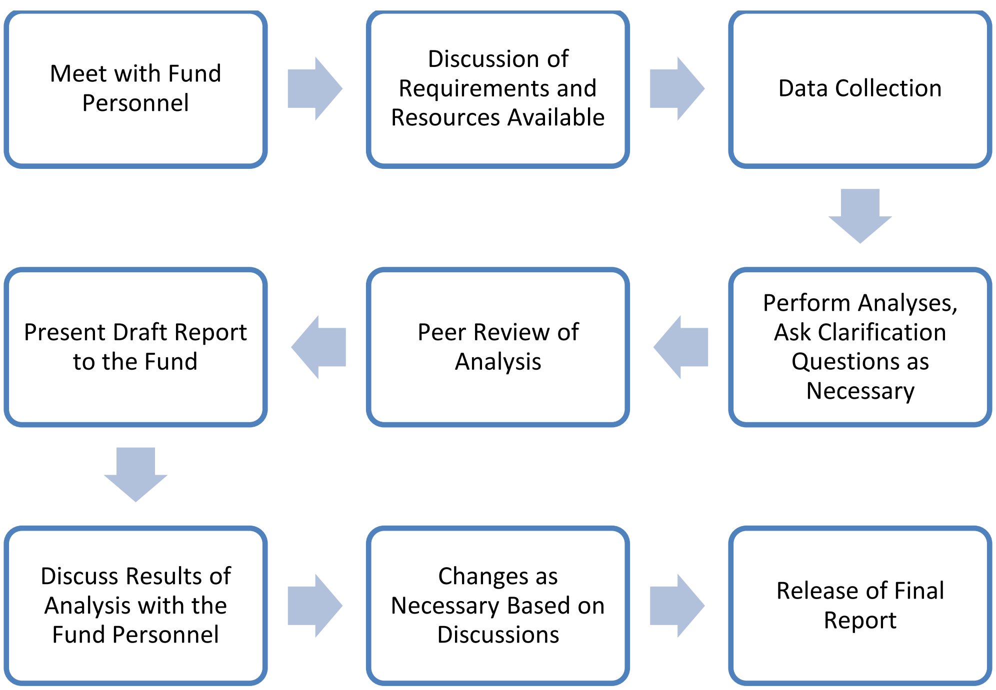
Taylor & Mulder actuaries also worked on the liquidation of Physicians Insurance Company Office of Liquidations and Rehabilitations. We were involved in creating the transactions for a major offshore loss commutation for which records had been destroyed by Company management. This was done by performing extensive analysis on all of the individual claims in the Company's database. Taylor & Mulder provided a forensic evaluation of the medical malpractice carrier, calculating the reserves that should have been recognized for every prior year-end in order to enable the Department to allocate damages to the management team and services providers for each year. Our actuaries also assisted the Department by providing a reconstruction of needed reserves at historical points in time prior to the insolvency and by providing assistance in analyzing other aspects of the insurer's operations.

Taylor & Mulder has been pre-qualified by the Pennsylvania Insurance Department to perform actuarial analyses related to Mutual to Stock Conversions.

Ms. Mulder has also provided rate filing review services to the Pennsylvania Insurance Department.

## Work Plan

Taylor & Mulder has significant experience providing actuarial consulting services to self-insured government clients. By way of describing how we will deliver our service, we outline the usual process by which we have conducted similar assignments in the past. This process has been tremendously successful when used in performing the yearly actuarial analysis for the West Virginia Department of Environmental Quality Office of Special Reclamation. The following flowchart diagrams the process used to perform the required work:




This high-level outline typifies our work process for similar clients; however, as a small firm we have the flexibility to significantly adjust our work process to fit the needs of a particular client. It is our experience that every client is different, so while the above process is correct on average, no client quite perfectly fits to a single mold.

The remainder of this section provides details about this process broken down into six steps, as well as a typical timeline for our work progress, key meetings, and deliverables.

## Step 1: Kickoff and Data Collection

All work begins with discussions with the Fund. During this phase, we will collect basic information about the project, clarify the Fund's requirements, and determine the most effective way to contact individuals with the Fund to obtain data and information relevant to the study. Depending on availability and the Fund's expectations (and considering the effects of COVID-19), this could take the form of phone conferences or in-person meetings.

Communication with the Fund is central to our work plan and will continue throughout the analysis process. As part of our commitment to quality of work product and excellent service, ***we provide unlimited telephone conversations with our consultants at no cost to our clients***. We want our clients to feel comfortable discussing their needs with us and understanding every step of the project that we are doing for them.

At this time, we will convene with the risk management staff of the Fund and work with them to understand significant exposures or unique risks and issues that will affect loss trends in our analysis. This will include changes in underlying risks, shifts in exposure or changing trends, operational changes affecting claims handling, or legal issues that are expected to have an impact on future claims development. If it would be useful, we will provide the Fund with a data request letter outlining our specific data requirements, and we will work with the Fund to ensure data received is what we need to conduct the Fund's study.

Once we have thorough understanding of the data, we will begin analyzing and vetting the data to ensure its integrity and reasonability. Here we will address any unexpected patterns through further dialogue with the Fund or through research as needed.

## Step 2: Analysis

In this phase, we will review the information obtained in Step 1 and, through actuarial analysis and in consultation with the Fund, perform the analysis required in the scope of work of the RFP. This analysis will include:

1. Evaluating the Fund's fiscal soundness,
2. Evaluating the present assets and liabilities of the Fund for a minimum of 20 years, including a table illustrating those assets and liabilities,
3. An evaluation of the prospective assets and liabilities of the Fund, for a minimum of 20 years, including the funded status of the Program,
4. A table that combines the present assets and liability for the Fund and the prospective assets and liabilities for the fund,
5. An analysis and discussion of the ability of the Program to support long term and/or perpetual liabilities,

During this phase, we will employ several methods in order to best obtain projections of assets and liabilities in the coming years. The purpose of employing multiple projection methods is that some methods can produce answers that are biased high or low depending on the underlying causes of patterns in the data, and by reviewing the results of multiple methods and combining approaches, it is possible to obtain more accurate answers than a single method would allow.

If a client has already had actuarial studies performed – as the Fund has – we will use the previous actuary's approach as a starting point for our analysis, with the goal of improving upon the stability and accuracy of the financial projections. We will also ensure that comparison to the prior actuaries' results is straightforward, so that it is easy to contextualize our results and understand the improvements in our analysis and the reasons for any significant differences in results.

Typically, we will project liabilities through the use of the paid and incurred loss development methods (also known as "chain-ladder" methods), paid and incurred frequency / severity methods, and the paid and incurred Bornhuetter-Ferguson methods. Depending on the nature and availability of the data, we may choose to model certain types of unclaimed property separately to obtain a more accurate projection of losses.

The result of these analyses will be a series of estimates of expected ultimate losses and expenses. Having calculated these, we will then develop indications for required loss and expense reserves (i.e., the liabilities.) We will compare the results of the various projection methods and select or combine methods where appropriate to obtain the best projections of required reserves.

Projections of revenues would typically follow projections of claimed property. Other asset projections are typically done using exponential or linear interpolation methods based on historical data and, ideally, using external indices as guides for anticipated market changes that could impact assets (for example, making use of the Consumer Price Index).

All projections are subject to some degree of uncertainty based on the specific model and method of projection used. We will use our "best estimate" projections as a starting point for determining the likely range of results for both assets and liabilities.

Based on these projections, we will be able to form an opinion as to the solvency of the fund for, at a minimum, the next 20 years. We will provide comprehensive financial projections for this period. In addition, we will provide analysis of the financial results under alternative expense and claim structures by adjusting our analysis based on these alternative assumptions. These assumptions will be derived from discussions with Fund personnel, actuarial judgment, and review of other states' expense and claim structures.

### Step 3: Reasonability Checks / Peer Review

The report will undergo (1) our stringent peer review process and (2) reasonability checks to ensure logical consistency and accuracy. We will take this opportunity to revise any estimates if necessary. While we undergo a formal peer review process once the analysis is completed, we also peer review at several intermediate steps along the way to ensure smooth progress and accurate analysis.

Reasonability checks will take the form of an analysis of the underlying data, assumptions underlying each intermediary step and method, and all conclusions regarding liabilities and assets, indicated loss reserves, and risk margins. These checks may also include comparisons of ratios (such as loss ratios) to other book years and to industry data, taking into account inflation and market conditions. We will investigate the source of any ensuing discrepancies to ensure sound analysis.

### Step 4: Development of Draft Reports

We will write a narrative report and prepare exhibits for the report on behalf of the Fund by September 15, 2021. We will submit a draft report to the Fund. Our report will include:

- A summary of findings, which would include the amount of unpaid losses and expenses, and financial projections over the next 20 years,
- Our range of reasonable estimates of loss and loss adjustment expense reserves,
- Exhibits, including loss triangles, which support our asset and liability projections,
- An explanation of all methodologies we employ in evaluating the fiscal soundness of the Fund.
- A one-page executive summary of conclusions with references to the body of the report,

Along with our draft report, we will also submit the models we built to the Fund.

### Step 5: Discussion and Revision

Following the draft report, we will receive comments from the Fund regarding our analysis. We will discuss those comments with the Fund and make changes to our analysis as needed. Following this process, we will prepare a final report to send to the Fund.

### Step 6: Final Report

After being notified the draft report and any revisions can be finalized, we will submit our final report to the Fund. The final report will be delivered to the Fund no later than November 1, 2021.

Following these steps, we will meet with the Fund staff and/or elected officials to present our findings and on November 15, 2021 we will have a virtual exit conference.

### Timetable for Completion

The following chart outlines a rough timeline for major milestones of work to be performed. Taylor & Mulder prides itself on completing work on time and on a schedule convenient to our clients without compromising on quality.

| Date | Milestone |
|---|---|
| Receipt of Contract | Work Commences |
| First Week | Provide Data Request, Set Up Kickoff Meeting |
| August 15, 2021 | Progress Report; Complete First Cut of Analysis |
| September 1, 2021 | Progress Report; Thorough Testing of Assumptions and Results |
| September 15, 2021 | Provide Complete Draft Report |
| November 1, 2021 | Provide Final Report |
| November 15, 2021 | Attend Exit Conference |

Typically, our projects are able to move more quickly if all the data is easily available. We prefer to provide the client with as much time as possible to ask any questions they may have about our work and to ensure satisfaction with our deliverables.

## Appendix A – Resumes

The following pages contain the resumes for our actuaries in the following order:

1. E. Toni Mulder, FCAS, MAAA, FCA
2. Daniel W. Lupton, FCAS, MAAA, CSPA, MBA
3. Bobby J. Jaegers, ACAS, MAAA

# RESUME
# EVELYN TONI MULDER, FCAS, MAAA, FCA

**PROFESSIONAL DESIGNATIONS**

- Fellow of the Casualty Actuarial Society (FCAS)
- Member of the American Academy of Actuaries (MAAA)
- Fellow of the Conference of Consulting Actuaries (FCA)

**EXPERIENCE**

Ms. Mulder has over 40 years' experience in the actuarial field, including 28 years as a consultant. As a consultant, Ms. Mulder has served over 75 insurance companies, 40 self-insured hospitals, federal, state, county, and local governmental agencies, and Fortune 500 companies. Services include reserving, pricing, funding studies, financial examination services for insurance departments, actuarial analysis for insurance department liquidations, managing captives, reinsurance, fronting arrangements, statutory and GAAP accounting, computer simulation modeling, forensics, claims analysis and marketing. She provides loss reserve opinions and rate filings for insurance companies and funding, reserving, GASB10 review, premium and rate determination and cost allocation studies for self-insurers. Her experience includes expert witness testimony for litigation and arbitration proceedings. Ms. Mulder specializes in long tail lines of business including workers' compensation, taxi cab liability, medical malpractice for hospital and physicians' and surgeons', governmental liability, general liability, products liability, commercial automobile liability, railroad liability and reinsurance.

**EMPLOYMENT HISTORY**

Taylor & Mulder, Inc., Principal and Consulting Actuary, 1998 to present. Consulting to insurance companies in the U.S. and captive insurers in Bermuda. Services included reserving, pricing, funding studies, financial examination services for insurance departments, actuarial analysis for insurance department liquidations, managing captives, reinsurance, fronting arrangements, statutory and GAAP accounting, computer simulation modeling, forensics, claims analysis, operations of two Bermuda domiciled insurance companies, reserving, premium and rate determination and cost allocation studies for self-insurers. Her experience includes expert witness testimony for litigation and arbitration proceedings.

Ms. Mulder has testified as an expert and provided expert reports in disputes involving arbitration and litigation between insurance companies, reinsurers, claims adjusting firms and service providers. Ms. Mulder has testified on behalf of insurance companies and service providers. She specializes in forensics, calculating the effects of prior decision making and policies, and retrospective reserving issues.

William M. Mercer, Incorporated, Principal and Coordinating Partner, (Washington, DC) 1992 to 1997. Office head for the Washington DC office of the Risk, Finance and Insurance group. This group provided actuarial analyses for insurance companies, insurance Departments, self-insured corporations, Federal, State and County governmental agencies, railroads and hospitals. Services include pricing, reserving, funding studies, cost allocation, feasibility studies, GASB10, reinsurance evaluations, large risk analysis, captive feasibility studies, insurance company modeling, catastrophe modeling, litigation support and expert witness testimony, and mergers and acquisitions. She was project manager for a client where the firm designed, programmed and tested a hurricane model that she presented at a rate hearing before the Texas State Board of Insurance. Ms. Mulder also managed the project to calculate the property and liability costs for the Federal Government for the RTC for $18 billion in properties in numerous classification codes for properties located around the country. For one of her railroad clients, she estimated the cost of future railroad collisions.

Tillinghast/Towers Perrin, Vice President, (Vienna, Virginia) 1987 to 1988. Consulting actuary to insurers and self-insurers in the areas of pricing and reserving. Clients included insurance companies, self-insurers, Bermuda captives, hospitals, governments, and railroads.

Deloitte Haskins & Sells, Senior Manager (Washington, DC) 1982 to 1986. Provided consulting services to clients and audit support for 66 casualty insurance companies countrywide each year. Audit clients included Munich Reinsurance, Safeco, Gerling Global, Metropolitan Reinsurance, Metropolitan Property and Casualty, Motors Insurance Company and Armco. On a significant number of audit clients, she also provided loss reserve opinions. Self-Insured clients included governments and hospitals.

Edward H. Friend & Company, Chief Casualty Actuary and Assistant Vice President (Washington, DC) 1979 to 1982. Responsibilities included managing the casualty actuarial practice for a pension and employee benefits consulting firm. Clients included over 80% of the hospitals in DC and a number in West Virginia. Ms. Mulder prepared the actuarial reports for the hospitals for their risks of hospital and physicians' and surgeons' professional liability, and workers' compensation.

Chubb & Son Insurance Group, Assistant Actuary and Corporate Officer (Short Hills, New Jersey) 1976 to 1979. She was responsible for the commercial automobile and general liability divisions of the actuarial departments. This included working closely with the underwriters. Ms. Mulder was the liaison between the actuarial department, the underwriting department and the ISO committees for these lines of business.

Continental Insurance Company, Actuarial Assistant (New York, New York) 1971 to 1975. Ms. Mulder was responsible for preparing the rate filings for private passenger automobile and homeowners for approximately half of the state insurance departments in the country.

**PROFESSIONAL ACTIVITY**

- Casualty Actuarial Society Task Force on Reserving Principles – Assigned the task of Revising the 1988 Statement of Principles Regarding Property and Casualty Loss and Loss Adjustment Expense Reserves – 2001 to 2008
- Casualty Actuarial Society Committee on Reserves – 1997 to 2003
- Casualty Actuarial Society Committee on Online Services – 1997 to 2002
- Liaison to the Casualty Actuarial Society Committee on Online Services on behalf of the Casualty Actuarial Society Committee on Reserves – 1997 to 2002
- Liaison to the Casualty Actuarial Society Committee on Health and Managed Care Issues on behalf of the Casualty Actuarial Society Committee on Online Services – 2001 to 2002

- Liaison to the Casualty Actuarial Society Education Policy Committee on behalf of the Conference of Consulting Actuaries – 1999 to 2001
- Casualty Actuarial Society Committee on Valuation, Finance and Investments – 1997 to 2000
- American Academy of Actuaries Issues Committee Chair of Self-Insurance Issues – 1997 to 1999
- Joint Program Committee for the Casualty Loss Reserve Seminar – 1993 to 1998
- American Academy of Actuaries - Chairperson, Committee on Publications – 1993 to 1997
- Contingencies Magazine – The Journal of the American Academy of Actuaries – Chairperson, Editorial Advisory Board –1993 to 1997
- Contingencies Magazine – The Journal of the American Academy of Actuaries – Member, Editorial Advisory Board –1988 to 1993
- Casualty Actuarial Society – Advisory Committee to Forecast 2000 Representing the Casualty Actuarial Society – 1988 to1993
- The Actuarial Update (The American Academy of Actuary's Newsletter) Editor – 1989-93
- The Actuarial Review (The Casualty Actuarial Society's Newsletter) News Editor – 1988-92
- Casualty Actuarial Society External Communications Committee Chairman – 1987 to 1989
- Casualty Actuarial Society External Communications Committee Vice-Chairman – 1986-87
- Casualty Actuarial Society External Communications Committee – 1983-1986
- Casualty Actuarial Society Committee on Career Enhancements – 1982-1983

**EDUCATION**

- BA in Mathematics from the State University of New York at Plattsburgh, 1971

# RESUME
# Daniel W. Lupton, FCAS, MAAA, CSPA, MBA

**PROFESSIONAL DESIGNATIONS**

- Fellow of the Casualty Actuarial Society (FCAS)
- Member of the American Academy of Actuaries (MAAA)
- Certified Specialist in Predictive Analytics (CSPA)
- Master of Business Administration (MBA)

**EXPERIENCE**

At Taylor & Mulder Inc., Mr. Lupton has specialized in statistical modeling, both in the creation and use of models and in the review of statistical models for insurance regulation. This work has included use or review of hierarchical Bayesian models, generalized linear models, bootstrap models, regression splines, and cluster analysis, among other cutting-edge predictive analytics techniques.

In addition, he has been involved in projects including assisting with risk-focused financial examinations of insurance companies, reviewing rate filings for state insurance departments, analyzing liabilities of self-insured government agencies and municipalities, stress testing for mortgage guaranty insurance, analyzing lifetime neurological birth injury claims, and supporting expert witness testimony. Mr. Lupton has particular experience with professional liability, workers' compensation, automobile liability, general liability, and underground petroleum storage tank insurance.

This work has included reserve studies and cost allocation studies, stochastic loss modeling, reviewing rate filings, generating pro-forma financials, assisting with GASB 10 and GASB 30 compliance, and forming opinions regarding risk transfer for excess insurance contracts.

**EMPLOYMENT HISTORY**

Prior to working at Taylor & Mulder, Mr. Lupton worked for a Milliman, Inc., a major consulting firm, where he helped to perform analyses in such diverse lines as workers' compensation, general liability, commercial auto liability, mortgage guaranty, medical professional liability, environmental liability, crop insurance, surety, and fiduciary insurance, among others. In this capacity he was responsible for aiding in data entry and analysis tasks, manipulation of large databases, creation of custom software to solve analysis tasks, and creation of client-oriented reports.

**PROFESSIONAL ACTIVITY**

- Chair, CAS Machine Learning Working Party, 2018 – Present
- Member, CAS Ratemaking Committee, 2017 – Present
- Member, Dynamic Risk Modeling Committee, 2015 – Present
- Editorial Review Staff, Variance Actuarial Journal, 2014 – Present
- Member, Membership Advisory Panel of the Casualty Actuarial Society, 2013 – Present
- Certified Specialist in Predictive Analytics, 2017

- Member, Diversity Committee of the Casualty Actuarial Society, 2015 – 2017
- Fellow of the Casualty Actuarial Society, 2014
- Member of the American Academy of Actuaries, 2013

**EDUCATION**

- MBA, University of Maryland Robert H. Smith School of Business, 2011
- BA with Comprehensive Honors, Mathematics and English, 2008

**PUBLICATIONS**

Kevin Kuo and Daniel Lupton. *Towards Explainability of Machine Learning Models in Insurance Pricing*. Accepted for publication at Variance Journal. https://arxiv.org/abs/2003.10674

# RESUME
# Bobby J. Jaegers, ACAS, MAAA

Bobby Jaegers is a consulting actuary at Taylor & Mulder, Inc. He is an Associate of the Casualty Actuarial Society.

**EXPERIENCE**

At Taylor & Mulder Inc., Mr. Jaegers has performed rate filing reviews, prepared rate filings for insurance clients, conducted reserve analyses, and designed statistical models for insurance companies, captive insurers and risk retention groups. His experience in designing models is translated into his detailed analysis of sophisticated, complex models presented in the review of rate filings for private passenger automobile and homeowners for the top personal lines writers in the country. Mr. Jaegers works on the review of rate filings on behalf of numerous insurance departments. Statistical modeling and rate filing reviews include all of the major lines of insurance such as worker's compensation, personal automobile, commercial automobile, homeowners, inland marine, property, dwelling fire, farmowners, motorcycle, recreation vehicles, personal liability, personal umbrella, equipment breakdown, professional liability insurance and earthquake, hurricane and other catastrophe models.

Mr. Jaegers is responsible for data compilation, manipulation and analyses for financial examinations of insurance companies on behalf of numerous insurance departments. His responsibilities include transforming and analyzing client data required for financial examinations. He works with advanced statistical models such as generalized linear models for insurance companies, captives, risk retention groups, government entities, self-insured clients and state insurance departments.

Prior to joining Taylor & Mulder, Inc., Mr. Jaegers worked for Shelter Insurance Companies, a midwestern property and casualty insurer, where he compiled rate filings and approved rate filings assembled by peers for lines including homeowners, private passenger automobile, commercial automobile, mobile-homeowners, dwelling fire, general liability, farmowners, boatowners, and inland marine. He was also responsible for manipulating databases and developing web-based software solutions to visualize actuarial analyses.

**PROFESSIONAL ACTIVITY**

- CAS University Liaison for the University of Central Missouri – 2020 to Present

**EDUCATION**

- BS with Honors from Maryville University of St. Louis, 2012

## Appendix B – Redacted Sample Reports

The following pages contain the redacted text (**excluding exhibits**) for one sample report of another project of similar nature, size, and scope in which we are opining on governmental funds.

Taylor & Mulder
Property and Casualty Consulting Actuaries

[redacted]

# Actuarial Analysis of Loss and Loss Adjustment Expense Reserves for Workers' Compensation Evaluated as of September 30, 2018

March 2020

10508 Rivers Bend Lane, Potomac, MD 20854 t (301) 365-4800 f (301) 36 5-4882 e contact@taylorandmulder.com w taylorandmulder.com

# Taylor&Mulder
Property and Casualty Consulting Actuaries

10508 Rivers Bend Lane,
Potomac, MD 20854

t (301) 365-4800 f (301) 365-4882
e contact@taylorandmulder.com

w taylorandmulder.com

March 6, 2020

[redacted]

Dear [redacted],

Enclosed is the report detailing our actuarial review as of September 30, 2018 of the [redacted] self-insured liabilities for workers' compensation. Our report includes estimates of loss and allocated loss adjustment expense ("ALAE") unpaid, as well as recommended rates and funding amounts.

The first section in the text of our report is the **Executive Summary** section. This section describes the **Purpose and Scope** of our report and **Background** on the [redacted]. The next section provides **Conclusions**, followed by information about **Report Distribution and Use** as well as **Conditions and Limitations**.

The last section of the text of our report is the **Actuarial Analysis** section that describes the sources of data, our overall methodology, and specific methodology considerations. It also describes the selection of ultimate losses and loss reserve discounting. The **Exhibits** section of our report follows the text of the report and includes all of our analyses.

Please call if you have any questions regarding any aspect of our report.

Sincerely,

Evelyn Toni Mulder, FCAS, MAAA, FCA

Daniel W. Lupton, FCAS, MAAA, CSPA, MBA
Enclosures

[redacted]

# Actuarial Analysis of Loss and Loss Adjustment Expense Reserves for Workers' Compensation Evaluated as of September 30, 2018

## Contents

# Executive Summary

## Purpose and Scope

Taylor & Mulder, Incorporated was engaged by the [redacted], to perform an actuarial evaluation of the loss and loss adjustment expenses of the [redacted]. This evaluation includes recommended reserve levels, fund balances and rates as of September 30, 2018 for workers' compensation. The following areas of [redacted] participation in the [redacted] were included in this report:

- [redacted]
- [redacted]
- [redacted]

Note that the [redacted] segment stopped participating in the program on January 1, 2005. The [redacted] retains responsibility for claims filed by [redacted] on or prior to December 31, 2004.

We were asked to provide estimates of unpaid claim costs as of September 30, 2018, to provide forecasts of rates, to provide for the cost of claims expected during the next fiscal year, and to determine whether or not the present funding levels are sufficient to fully fund the liabilities of the [redacted].

This report was prepared by the following actuaries:

Evelyn Toni Mulder, FCAS, MAAA, FCA – Principal and Consulting Actuary

Daniel W. Lupton, FCAS, MAAA, MBA – Consulting Actuary

In accordance with the requirements of the Actuarial Standards of Practice in making statements of actuarial opinion, I provide the following statement:

> *I, Evelyn Toni Mulder, am Principal and Consulting Actuary in the firm of Taylor & Mulder, Inc., Member of the American Academy of Actuaries and a Fellow of the Casualty Actuarial Society, and meet the qualification standards to issue this Statement of Actuarial Opinion.*

## Background

The [redacted] is an [redacted]. As an [redacted], the [redacted] [redacted].

The [redacted] commenced operations on January 1, 1975. The [redacted] programs provide coverage for the [redacted]. Coverage includes buildings, contents, vehicles, fidelity bonding, money and securities, aircraft, cargo, workers' compensation, and tort. This coverage applies to approximately 29,000 employees and $2.5 billion of assets worldwide.

The Risk Management Program also manages the [redacted].

The workers' compensation self-insurance program of the [redacted] commenced operations on September 1, 1979. Workers' compensation benefits payable to [redacted] employees in the US and overseas are governed by the Federal Longshore and Harbor Workers' Compensation Act. The [redacted] [redacted]. Benefits paid to [redacted] are set forth under [redacted].

## Conclusions

### Recommended Reserves

The following table displays the recommended reserves based on our analysis:

| [redacted]<br>Recommended Reserves as of September 30, 2018 | As of 9/30/2018 | As of 9/30/2019 |
|---|---|---|
| **Undiscounted Unpaid Losses & ALAE** | 54,215,050 | 53,541,724 |
| **Unpaid** [redacted] | 3,195,862 | 3,157,896 |
| **Discount** | 9,581,846 | 9,493,148 |
| **Discounted Reserve** | 47,829,067 | 47,206,472 |
| **10% Risk Margin** | 4,782,907 | 4,720,647 |
| **Carried Reserve** | [redacted] | [redacted] |
| **Recommended Additional Reserve** | | |

Undiscounted reserves as of September 30, 2019 reflect reserves as of 2018, adjusted to include new losses and allocated loss adjustment expenses expected to be incurred from October 1, 2018 through September 30, 2019, as well as amounts expected to be paid out during the 2019 fiscal year from the October 1, 2018 to September 30, 2019 accident year and prior accident years. The undiscounted unpaid loss and ALAE reserves as of 9/30/2018 and 9/30/2019 include reserves of $184,333 for [redacted].

Projected unpaid [redacted] as of September 30, 2019 are calculated based on the difference between the ultimate [redacted] expected related to accident year 2019 losses and the projected [redacted] paid in 2019.

Discount reflects the application of expected payment patterns to determine the timing of payments in the future. These payments are then discounted at a rate of 2.98%. Please see the loss reserve discounting section, below, for greater detail.

The 10% risk margin listed in the table above is expected to be adequate to provide for unanticipated adverse deviation in reserve levels, unexpected large claims in the future, or the inability of the fund to realize a 2.98% yield on investments over the remaining lifespan of the reserves. It is our understanding that in 2011, the recommended risk margin was reduced from 10% to 5% as a result of deteriorating experience. In keeping with [redacted]'s plan of increasing the risk margin gradually back to the 10% level over several years, we recommend a 10% risk margin this year, consistent with the previous year. This returns the risk margin to its original levels

## Rates

The following table displays recommended rates per $100 payroll to become effective October 1, 2019:

| [redacted]<br>Recommended Rates Per $100 Payroll as of September 30, 2018 | | | |
|---|---|---|---|
| | [redacted] | [redacted] | Combined |
| **Indicated Rate** | 1.400 | 0.760 | 1.308 |
| **Rate w/10% Equity Adjustment** | NA | NA | NA |
| **Rate w/20% Equity Adjustment** | NA | NA | NA |
| **Rate w/30% Equity Adjustment** | NA | NA | NA |
| **Rate w/40% Equity Adjustment** | NA | NA | NA |
| **Rate w/50% Equity Adjustment** | NA | NA | NA |

Note that the equity balance for the [redacted] and [redacted] funds are both positive, so no equity adjustment is needed. Because of this modest surplus, we recommend the use of the indicated rate of $1.400 per $100 payroll for [redacted] and the indicated rate of $0.760 per $100 payroll for [redacted].

The rates in the above table make provision for:

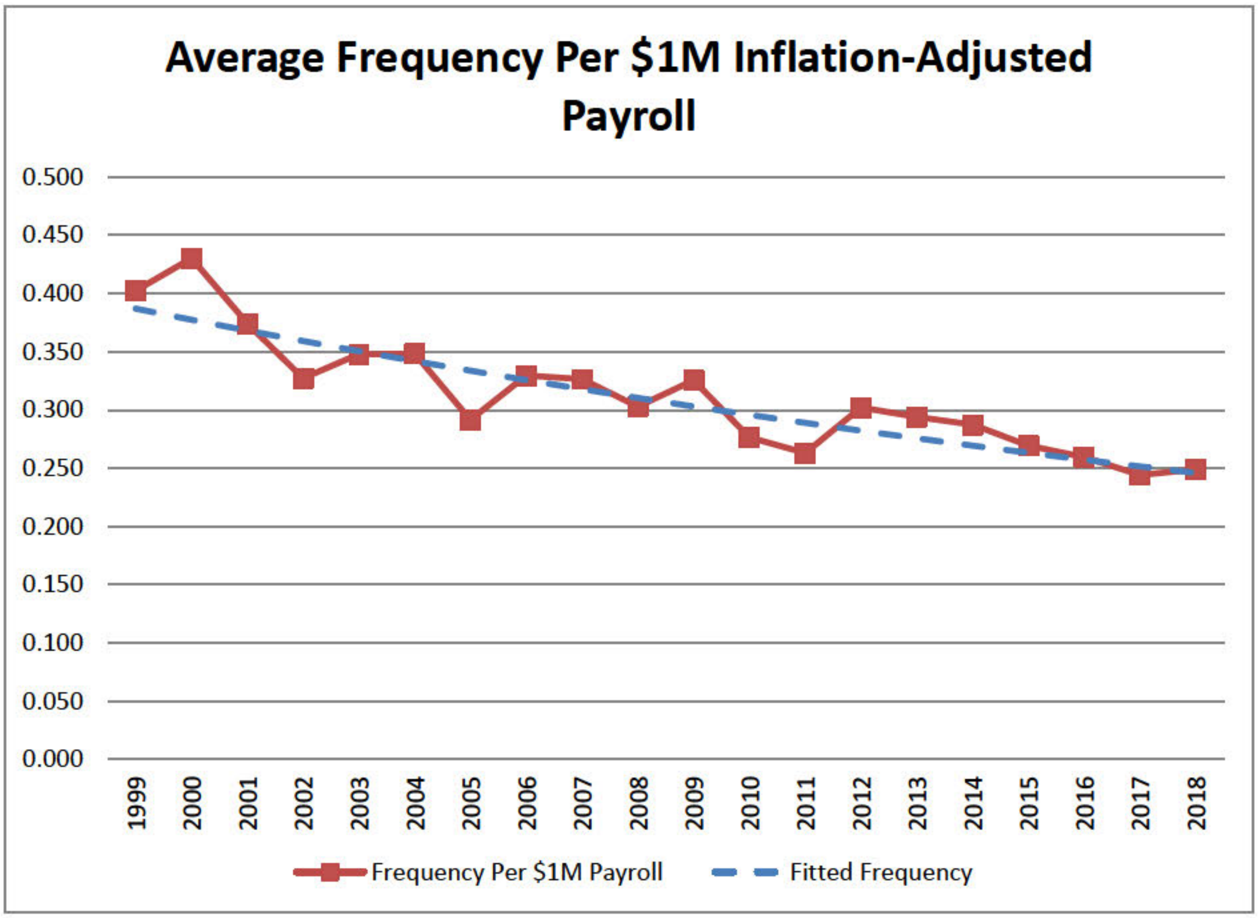
- Expected cost of future medical and indemnity benefits,
- Allocated loss adjustment expenses,
- Administrative and claim processing expenses,
- [redacted],

- Offset for investment income, assuming investment returns of 2.06% per annum,
- Risk margin of 10% and
- The payment of a portion of the negative equity balance, as applicable.

It should be noted that the rates in the above table do not make provision for anticipated deductible recoveries.

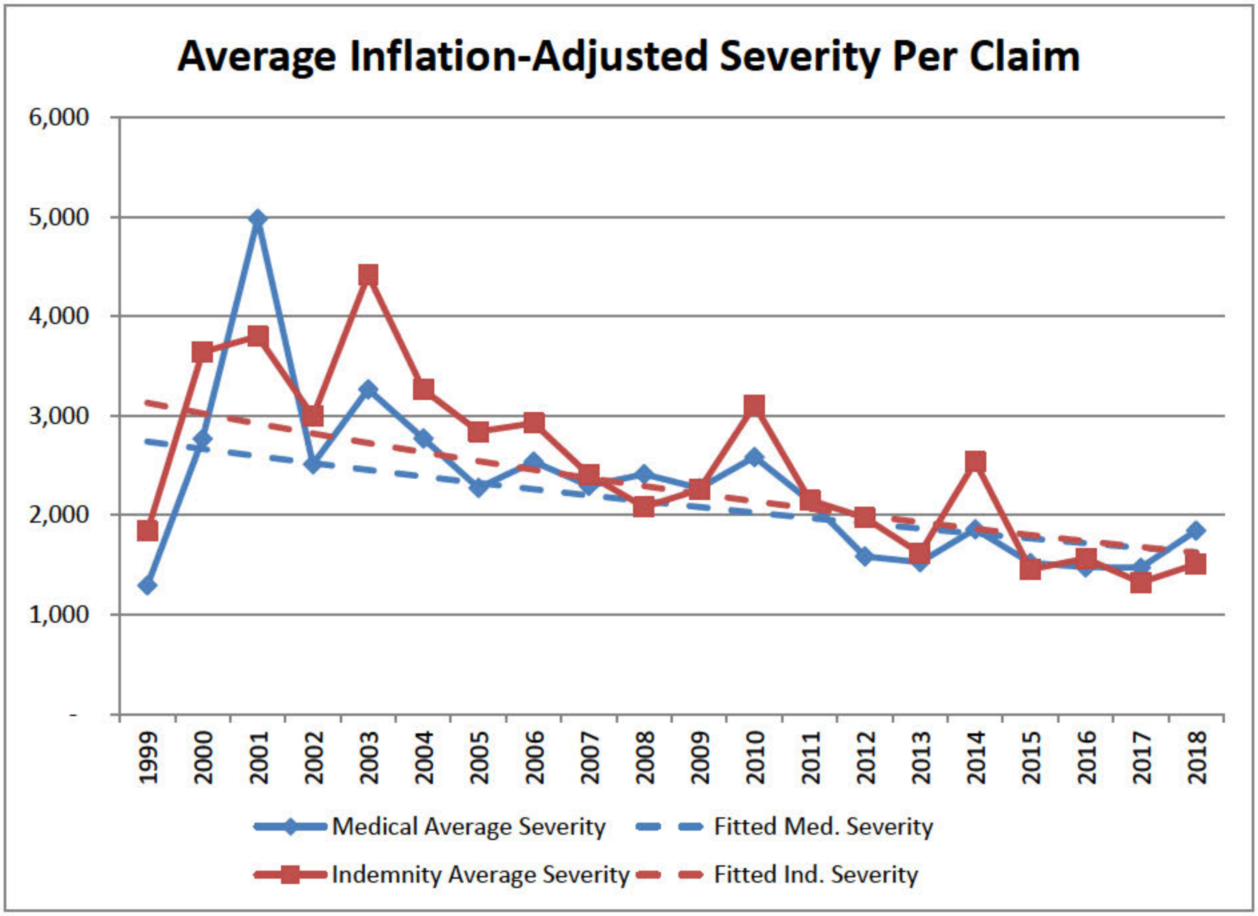
### Frequency and Severity Trend

The following chart shows the expected ultimate claim frequency per $1M inflation-adjusted payrolls from accident year 1999 to 2018:



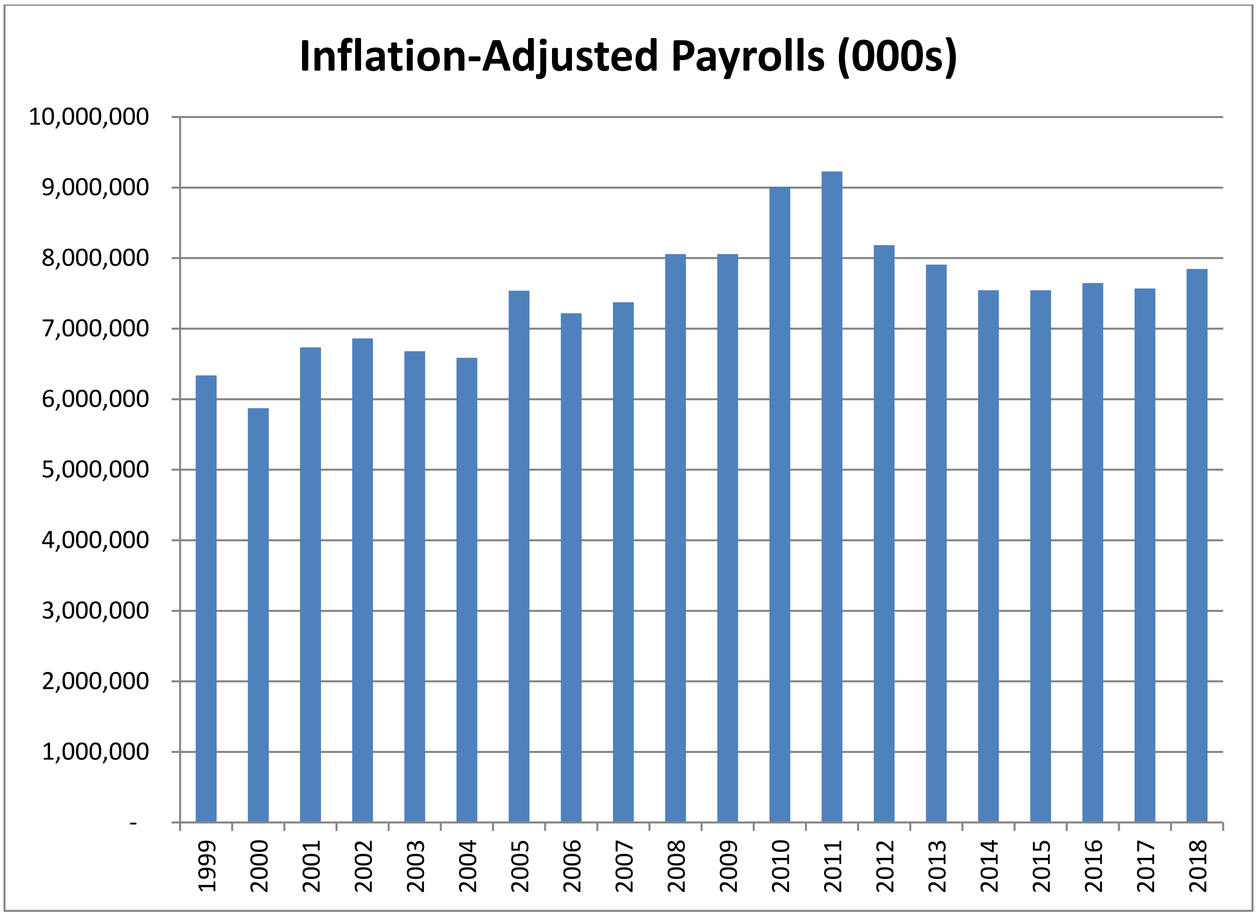
As shown in this chart, claim frequency seems to be declining by approximately 1.67% per year since 1999 relative to inflation-adjusted payrolls.

The following chart shows average ultimate medical and indemnity severity per claim from accident year 1999 to 2018:




Although average severities have declined in a relatively stable pattern from 2003-2018, it is unclear whether this negative trend will continue over the long term. The selected medical and indemnity severity trends of -2.71% and -3.39% (respectively) appear relatively stable from 2003 to 2018, and so it is reasonable to expect this trend to continue into the future. The volatility of severities from 1999-2003 makes projection difficult and raises the possibility of encountering similar volatility in the future. We have selected the trend period from 2004 to 2018, rather than from 1999 to 2018, due to the stability in the pattern in that period.

Frequency and severity per unit of exposure have also had generally negative trends over the preceding 10 years, however, exposures have grown over that time period. The following chart shows inflation-adjusted payrolls over the same time period:




## Report Distribution & Use

This report has been prepared solely for internal use by the [redacted], its accountants, auditors, and attorneys.

This report may be reproduced only in its entirety. The exhibits are integral parts of this report. Other distribution or use of this report by management or related parties described above is not authorized without the prior written permission of Taylor & Mulder, Incorporated. In addition, it should be understood that Taylor & Mulder consultants are available to respond to any questions by authorized third parties with respect to this report.

## Conditions and Limitations

The analyses contained in this report were performed using accepted loss and loss adjustment expense reserving methods adjusted to the special needs of [redacted] data and in conformance with sound actuarial practices and principles. Taylor & Mulder introduced assumptions and judgments that we considered appropriate under the given circumstances. With regard to projections of ultimate values, it should be understood that the emergence and settlement of claims are subject to uncertainty. While we have used our best professional judgment in all instances, projections of future ultimate losses and loss expenses are inherently uncertain because of the random nature of claims occurrences. They are also dependent upon future contingent events and are affected by many additional factors.

[redacted] claim reserving procedures and settlement philosophy, current and perceived social and economic inflation, current and future court and jury attitudes, improvements in technology, and many other economic, legal, political, and social factors all can have significant effects on ultimate claim costs. Therefore, we cannot warrant that actual developments will not differ from current projections. Such differences could be upward or downward and could be significant.

In summary, the ultimate loss and loss adjustment expense levels estimated in this report are expected values and are subject to potential variations in estimation due to:

1. the fact that the ultimate liability of [redacted] is subject to the outcome of events yet to occur;
2. unanticipated changes in the legal, economic, or claims adjudication environments;
3. statistical fluctuation in losses around the estimated or expected values when all other factors remain constant; and
4. the fact that the actual future loss and loss payment and reporting patterns may differ from those applied in the determination of the expected losses or there may be unanticipated changes in the loss and expense loss and expense reporting patterns.

Accordingly, no assurance can be given that future loss emergence will not deviate from the estimated ultimate losses. However, the ultimate loss estimates were based on a reasonable application of generally accepted actuarial procedures and techniques applied to the information available.

The analysis in this report was limited to the direct and net loss and loss adjustment expense items noted in the report. This report does not include an examination of the assets of [redacted], nor did we form any opinion as to the value or validity of the assets. This report does not include a review or analysis of any income statement or other balance sheet items. This analysis with respect to loss and loss adjustment expense reserves is based upon the assumption that all reserves are backed by valid assets and that these assets reflect suitably scheduled maturities and/or sufficient liquidity to meet cash flow requirements and that all reinsurance is valid and collectible.

This report was prepared for use by persons technically competent in insurance financial matters. Persons receiving this report should be made aware of the availability of Taylor & Mulder, Inc. personnel to answer questions and/or amplify on any matter addressed therein.

# Actuarial Analysis

## Overall Methodology

### Data Used

Data was provided from several sources:

- Loss runs were provided in Microsoft Excel format.
- Exposures and expenses were provided in separate files in Microsoft Excel format. This includes [redacted], payrolls, rates and premium income. Additionally, administrative expenses and service fees were provided in Microsoft Excel spreadsheets.
- Additional information was taken from [redacted] FY2018 financial statements.
- Interest rates used were derived from the daily treasury yield curve available from the U.S. Department of the Treasury.

The combined entries of all claims exceeded the maximum size of a Microsoft Excel file. As a result, the loss runs were imported into a relational database for analysis. Loss runs contained separate entries for medical, indemnity, rehab, legal, and ALAE payments and reserves, as well as an entry for total recovery. The detail and extent of data made it possible to separately analyze medical and indemnity losses and ALAE.

### Selection of Factors

In each of the methods described below, our selections of development factors were based on the evaluation of the predictive value of the various historical averages and the perceived presence or absence of trends and singularities. Apparent statistical aberrations were eliminated either judgmentally or by selecting a longer experience period or averages excluding outliers to increase the credibility of the experience, whichever we believed more appropriate in the particular circumstances.

### Paid Loss Development Method

The paid development method uses historical loss payment patterns to project actual payments as of a given valuation date to ultimate values. Historical payment patterns were relied upon in selecting the expected payment patterns at each annual evaluation. The difference between the projected ultimate losses and the losses paid through the evaluation date is the estimated reserve as of the evaluation date, i.e. the ultimate losses less paid losses yield the unpaid losses.

Estimates produced using the paid development method are not affected by changes in the case reserve position of the [redacted] which might have occurred during the review period, but may be understated since they ignore large unpaid claims that are known but have not yet been paid. Also, this method may be susceptible to any changes in case settlement philosophy and/or speed of payment.

### Incurred Loss Development Method

The incurred, or reported, development method is similar to the paid development method and uses historical reporting patterns to project actual reported amounts (excluding IBNR) as of a given evaluation date to ultimate. The difference between the projected ultimate losses and the losses paid through the evaluation date is the estimated reserve as of the evaluation date.

In many situations, the incurred development method is preferred over the paid method since large open but unpaid claims are considered. This method is more responsive to changes in the external business environment, since changes in liability laws, legislative changes affecting the [redacted], court decisions and other external factors are generally reflected in the case reserves as soon as claims management becomes aware of them. As a result, the incurred loss development factors at each stage of development tend to be lower, and more stable, than those of the corresponding paid development method. However, the incurred development method may be affected by changes in case reserving practices over time and, to a lesser extent, also may be affected by changes in claims settlement rates.

### Bornhuetter-Ferguson Method

Loss development methods may be affected by changes in the reporting and payment of claims. Random fluctuations in the reporting and payment of claims (such as may result from a single unusually large claim) are magnified by the development factors, potentially resulting in biased estimates and wide changes in the estimates from one evaluation to the next. To minimize such fluctuations, we applied the Bornhuetter-Ferguson method to incurred losses and to paid losses. The Bornhuetter-Ferguson method is particularly suited for projecting loss reserves for longer-tailed business with volatile or limited development patterns. The Bornhuetter-Ferguson method represents a compromise between traditional loss development methods such as the incurred and paid loss development methods and an expected loss ratio method.

For the incurred Bornhuetter-Ferguson method, initial expected losses are established for each accident year to be consistent with projected pure premium amounts, i.e. projected losses divided by an exposure base (e.g., payrolls for workers' compensation). These initial expected losses are then split into two components: expected reported losses and expected unreported losses. The expected unreported losses, which comprise the IBNR and bulk reserves for each accident year, are calculated as a function of the exposure base, the indicated pure premium, and the expected portion of ultimate losses that remains unreported or unreserved as of the evaluation date.

For the paid Bornhuetter-Ferguson method, initial expected losses are also derived from projected pure premium amounts. These initial expected losses are then split into two components: expected paid losses and expected unpaid losses. The expected unpaid losses, which comprise the IBNR and case reserves for each accident year, are calculated as a function of the exposure base, the indicated pure premium, and the expected portion of ultimate losses that remains unpaid as of the evaluation date.

## Selections of Ultimate Losses

Generally, the selection of ultimate losses was based on selecting an average of all of the loss reserving methods, as this seemed to give the best result. In years where there was greater variability, particularly more recent report years, we selected either a single method of a combination of methods to provide greater stability in results.

Any exceptions to the above description were based on our review of the methods combined with our knowledge of specific accident years and other considerations as described in the background section of our report.

## Allocated Loss Adjustment Expense Reserves

Ultimate ALAE amounts were calculated using the same four methods as for losses: the paid and incurred loss development methods and the paid and incurred Bornhuetter-Ferguson methods. For the Bornhuetter-Ferguson methods, a priori ultimate ALAE amounts were determined based on the ratio of ALAE paid or incurred to medical paid or medical incurred, respectively. The reason for this is because the analysis indicated that ALAE losses are more highly correlated with medical losses than with total losses, indemnity-only losses, or claim counts. Therefore, we selected historical ratios of ALAE to medical losses to determine the ALAE component.

[redacted]

[redacted].[redacted]

[redacted]

## Loss Reserve Discounting

Loss reserves were discounted to present value at a rate of 2.98% per annum. This discount rate was determined by first applying payment patterns to losses to determine the average length of time until payments are made on currently unpaid claims. In this case, the average length of time is 6.270 years. This was interpolated against the daily treasury yield curve to determine the average yield based on the average length of time until payment of claims. This average yield was used as the discount rate.

Loss payment patterns were applied to unpaid losses to project loss payments into the future. Losses were discounted based on the timing indicated in these payment patterns, assuming even payments throughout each annual period. For example, losses expected to be paid between 9/30/2018 and 9/30/2019 would have an assumed average payment date of 3/31/2019, and would therefore receive a discount of $1.0298^{-0.5}$ = 0.985, reflecting the payment at 0.5 years from the evaluation date of 9/30/2018.

## Designated Contact and Certification and Signature

**DESIGNATED CONTACT:** Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Vice President

(Name, Title)

Daniel W. Lupton, FCAS, MAAA, CSPA, MBA - Vice President

(Printed Name and Title)

10508 Rivers Bend Ln., Potomac, MD 20854

(Address)

301-956-9199 / 301-365-4882

(Phone Number) / (Fax Number)

dlupton@taylorandmulder.com

(email address)

**CERTIFICATION AND SIGNATURE:** By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Taylor & Mulder, Inc

(Company)

Vice President

(Authorized Signature) (Representative Name, Title)

Daniel W. Lupton, FCAS, MAAA, CSPA, MBA - Vice President

(Printed Name and Title of Authorized Representative)

March 2, 2021

(Date)

301-956-9199 / 301-365-4882

(Phone Number) (Fax Number)

# Specifications

REQUEST FOR QUOTATION
**CRFQ STO2100000003**
**Actuarial Services**

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## SPECIFICATIONS

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia State Treasurer's Office (STO) to establish a contract to provide actuarial consulting services to determine the appropriate amount of a reserve for its Unclaimed Property operations. The STO's only previous actuarial study was completed for FY 2017.

### 1.1 Operational Information

West Virginia Code §36-8-1 et seq. creates the West Virginia Uniform Unclaimed Property Act, under which the West Virginia State Treasurer is the Administrator. West Virginia Code §36-8-1 et seq. and §36-8A-1 et seq., Unclaimed Stolen Property, (collectively, the Act) apply only to personal property.

Following a presumed period of abandonment, dependent upon the nature of the property, and certain due diligence procedures, businesses in possession of unclaimed property (Holders) annually submit reports to the Administrator listing any information available about the owner and a description of the property being remitted. Most reporting is done in October and November each year. The State of West Virginia assumes custody and safekeeping responsibilities for unclaimed properly received by the Administrator from Holders in accordance with the Act.

All moneys received are deposited into the Unclaimed Property Fund. The Administrator sells any non-cash property received, e.g., safe deposit box contents, stocks, bonds and mutual funds. In addition, there are settlements and other property determined to be unclaimed received.

The Administrator maintains records of the owners and the property received and works diligently to reunite owners with their property. Examples of efforts include publishing lists of the unclaimed property held in newspapers, enabling online searches and accepting online claims. All records are maintained in a web based unclaimed property system known as KAPS. Within KAPS, all receipts and claims data is maintained. In addition, the system has a reporting module that runs business intelligence reports (Jasper) and reports can be customized reports. For example, reports exist to reconcile the financial data as well as document the amount of property, funds, and claims for each year and per each year. KAPS contains the present and historical data for the Unclaimed Property Program dating back to 1967.

For fiscal year 2020, approximately 6,236 reports were received with over 221,000 properties totaling $36 million. Additionally, approximately 14,000 claims were paid which included over 35,000 properties totaling $18 million. As of June 30, 2020, the Administrator's records reflect approximately 2.2 million properties available to claim for a total liability of $308 million. The Unclaimed Property Fund cash balance was approximately $33 million as of June 30, 2020. Over the years, moneys in the Unclaimed Property Fund have been used for expenses to operate the program and various matters determined by the Legislature.

There is no statute of limitation on the length of time owners and their heirs have to claim their property. Property received in 1980 may be claimed in 2021. The Administrator desires to have an actuarial analysis conducted to determine how much money should be retained in reserve to ensure that claims are timely paid.

2. **DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.

   **2.1 "Contract Services"** means actuarial services to evaluate present and prospective assets and liabilities of the Unclaimed Property Fund in order to provide a basis to make a professional determination and prepare a statement of actuarial opinion as to the fiscal soundness of the Unclaimed Property Program (Program) as more fully described in these specifications.

   **2.2 "Pricing Page"** means the pages, contained in wvOASIS or attached hereto, upon which Vendor should list its proposed price for the Contract Services.

   **2.3 "Solicitation"** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.

3. **QUALIFICATIONS:** Vendor, or Vendor's staff if requirements are inherently limited to individuals rather than corporate entities, shall have the following minimum qualifications:

   **3.1.** Vendor must have at least five (5) years' experience in providing actuarial services.

   **3.2.** Vendor must have completed at least two (2) actuarial studies involving government funds.

**3.3.** Vendor must provide proof of the following licensure. All requested material should be provided with the Vendor's bid but must be provided within 24 hours of request:

**3.3.1.** The Vendor, and any actuary assigned to the project, must be properly licensed and possess certification as a member of the American Academy of Actuaries and a fellow or associate of the Society of Actuaries.

**3.3.2.** The Vendor's professional personnel must have met continuing professional education requirements as mandated by the professional certifying Board of Actuaries within the preceding two years.

**3.4.** Vendor must have no conflict of interest with regard to any other work performed by the Vendor for the State of West Virginia.

**3.5.** Vendor must submit a copy of its most recent external quality control review report if requested by Agency. Vendor's external quality control review contents should provide either a positive or a non-negative review of the Vendor.

**3.6.** Vendor shall provide information on the results of any Federal or State desk reviews or field reviews of its reports during the past three years upon request by the Agency. Desk reviews or field reviews of the Vendor and litigation should not reflect poorly on the work of the Vendor.

**3.7.** Vendor shall provide information on the circumstances and status of any litigation taken or pending against the Vendor during the past three years with any government regulatory bodies or professional organization upon request by Agency.

**3.8.** Vendor must provide the names of three clients that may be contacted as references for purposes of this RFQ. Vendor should list references on the attached Exhibit B. Agency reserves the right to contact any person or entity it believes prudent and to inquire about the Vendor.

## 4. MANDATORY REQUIREMENTS:

**4.1 Mandatory Contract Services Requirements and Deliverables:** Contract Services must meet or exceed the mandatory requirements listed below.

**4.1.1** To fulfill the Program's requirements, the following timeline and deliverables are established:

| | | |
|---|---|---|
| Upon receipt of Contract | - | Virtual Entrance Conference |
| September 15, 2021 | - | Draft report |
| November 1, 2021 | - | Delivery of final report |
| November 15, 2021 | - | Virtual Exit Conference |

**4.1.2** Basic Services shall include conducting an actuarial analysis and issuing a report with a statement of actuarial opinion as to the Program's fiscal soundness. The report will be based on the analysis of the Unclaimed Property Fund to determine the amount of reserve needed to ensure future claims are properly and timely paid. Contract Services also include answering questions of the Administrator and STO staff concerning assumptions, methodology and the report. The report should include the following:

**4.1.2.1** A valuation in accordance with applicable actuarial standards of practice promulgated by the actuarial standards board of the American Academy of Actuaries that will determine the Program's fiscal soundness.

**4.1.2.2** An evaluation of the present (for fiscal year ending June 30, 2020) assets and liabilities of the Program for a minimum of 20 years, including an annual table illustrating those assets and liabilities.

**4.1.2.3** An evaluation of the prospective assets and liabilities of the Program, for a minimum of 20 years, including the funded status of Program.

**4.1.2.4** A table that combines the findings of 4.1.2.2 and 4.1.2.3.

**4.1.2.5** An analysis and discussion of the ability of the Program to support long term and/or perpetual liabilities.

**4.1.2.6** A one-page executive summary of conclusions with references to the body of the report.

**4.1.2.7** Provide a draft report along with the work papers, tables and models in Microsoft Excel and PDF.

**4.1.2.8** Once the draft report is approved, provide a final 'physical/hard copy' and an electronic copy of work papers, tables and models in Microsoft Excel and PDF.

**4.1.3** Vendor shall participate in a virtual entrance conference involving interviews with the STO's staff and participate in a virtual exit conference.

**4.1.4** Vendor must acknowledge that any reports provided by the successful Vendor will be public documents, subject to disclosure and distribution in accordance with the West Virginia Freedom of Information Act.

**4.1.5** Prior to Contract award, Vendor must execute the West Virginia State Treasurer's Office Non-Employee Confidentiality/Non-Disclosure Agreement attached as Exhibit C.

**4.1.6** Additional Services:

a. The Vendor may be requested to provide additional reporting based upon alternative scenarios and data as provided by the STO staff. If the STO desires additional reporting based upon alternative scenarios and data, a Statement of Work specifying the Services will be mutually agreed upon at rates not to exceed the per-hour rate stated on the Pricing Page. The agreed upon Statement of Work will be incorporated into the contract by a change order. There is no guarantee the STO will request any these Services.

## 5. CONTRACT AWARD:

**5.1 Contract Award:** The Contract is intended to provide Agency with a purchase price for the Contract Services. The Contract shall be awarded to the Vendor that provides the Contract Services meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages.

**5.2 Pricing Page:** Vendor should complete the Pricing Page in full as failure to complete the Pricing Page in its entirety may result in Vendor's bid being disqualified.

Vendor should type or electronically enter the information into the Pricing Pages through wvOASIS, if available, or as an electronic document.

6. **PERFORMANCE:** Vendor and Agency shall agree upon a schedule for performance of Contract Services and Contract Services Deliverables, unless such a schedule is already included herein by Agency. In the event that this Contract is designated as an open-end contract, Vendor shall perform in accordance with the release orders that may be issued against this Contract.

7. **PAYMENT:** Agency shall pay for Basic Services tasks completed as per 7.1 Payment Schedule, as shown on the Pricing Page for all Contract Services performed and accepted under this Contract. Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.

   **7.1.** Payment Schedule:

| **Task – Basic Services** |
| --- |
| Final Actuarial Report (4.1.2.8) |

8. **VENDOR DEFAULT:**

   **8.1.** The following shall be considered a vendor default under this Contract:

   **8.1.1.** Failure to perform Contract Services in accordance with the requirements contained herein.

   **8.1.2.** Failure to comply with other specifications and requirements contained herein.

   **8.1.3.** Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.

   **8.1.4.** Failure to remedy deficient performance upon request.

   **8.2.** The following remedies shall be available to Agency upon default.

   **8.2.1** Immediate cancellation of the Contract.

   **8.2.2.** Immediate cancellation of one or more release orders issued under this Contract.

   **8.2.3.** Any other remedies available in law or equity.

## 9. MISCELLANEOUS:

**9.1 Contract Manager:** During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

**Contract Manager:** Daniel W. Lupton, FCAS, MAAA, CSPA, MBA

**Telephone Number:** 301-956-9199

**Fax Number:** 301-365-4882

**Email Address:** dlupton@taylorandmulder.com

# Exhibits

## EXHIBIT A – PRICING PAGE

Vendor should complete this Pricing Page and submit it with its bid response. Vendor shall complete the Pricing Page by entering a Cost per Year/Task for the Basic Services of the Actuarial Study. All fees must be inclusive of this rate as no separate costs will be reimbursed.

Vendor must also propose an hourly fee for any additional related services to be agreed upon by the STO and the Vendor and added per a contract Change Order. The Additional Duties' quantities provided are general estimates only and shall only be used for evaluation purposes. The STO makes no guarantee to the actual quantity of hours that will be required. The hourly rate for these services must be all inclusive as no separate costs will be reimbursed.

| ITEM | DESCRIPTION | UNIT – YEAR/TASK | COST PER YEAR/UNIT | TOTAL COST (YEAR ONE) |
|---|---|---|---|---|
| 1 | Actuarial Report (Per Section 4.1.2) – Year 1 | 1 | $ 14,000 | $ 14,000 |
| 2 | Additional Duties as specified in Section 4.1.6.a of the Specifications | **20 hours (Estimate)** | $ 250 | $ 5,000 |
| **TOTAL BID AMOUNT FOR YEAR ONE** | | | | $ 19,000 |

**Note: Evaluation and initial award will be based on fees proposed for Year 1.**

**Please provide the proposed fees for Optional Renewals, Years 2 – 4 as well.**

| ITEM | DESCRIPTION | UNIT – YEAR/TASK | COST PER YEAR/UNIT | TOTAL COST |
|---|---|---|---|---|
| 3 | Actuarial Report (Per Section 4.1.2) – **YEAR 2** | 1 | $ 14,000 | $ 14,000 |
| 4 | Actuarial Report (Per Section 4.1.2) – **YEAR 3** | 1 | $ 14,000 | $ 14,000 |
| 5 | Actuarial Report (Per Section 4.1.2) – **YEAR 4** | 1 | $ 14,000 | $ 14,000 |

**EXHIBIT B**

**REFERENCES**

**Vendor Name:** Taylor & Mulder, Inc

**REFERENCES**

1. **Client:** West Virginia Department of Environmental Protection Special Reclamation Fund

   **Nature of Engagement:** Bi-annual actuarial analysis of assets and liabilities

   **Contact Person and Phone Number:** Michael P. Sheehan; 301-457-4588 Ext 43261

   **Other Pertinent Information:** Included 20-year financial projections.

2. **Client:** Missouri Petroleum Storage Tank Insurance Fund

   **Nature of Engagement:** Annual analysis of storage tank fund.

   **Contact Person and Phone Number:** Kelley Ogletree; 573-522-2352

   **Other Pertinent Information:** Funding analysis of storage tank fund.

3. **Client:** United States Army Central Insurance Fund

   **Nature of Engagement:** Annual analysis of self-insurance programs.

   **Contact Person and Phone Number:** Glenn M. LeGrande, CCLS; 919-354-2740 Ext 18348

   **Other Pertinent Information:** Funding analysis of workers' compensation and other P&C lines

**EXHIBIT C**

# WEST VIRGINIA STATE TREASURER'S OFFICE
# NON-EMPLOYEE
# CONFIDENTIALITY / NON-DISCLOSURE AGREEMENT

I am the person (Recipient) named at the end of this Confidentiality / Non-Disclosure Agreement (Agreement), who may have access to information of the West Virginia State Treasurer's Office (STO) that may be considered confidential. I acknowledge and agree that:

1. Certain matters may be disclosed to me that should remain confidential or proprietary;
2. Confidential Data includes any information residing on STO Information Resources; all data, materials, products, technology, computer programs, specifications, manuals, business plans, records, software, financial information, and other information disclosed or submitted, orally, in writing, graphically, machine recognizable, or by any other media, to me that is stamped "confidential," "proprietary" or with a similar legend; or that I have been informed is Confidential Data or proprietary information;
3. Confidential Data does not include any data, information or device that is:
   - in my possession from another source without restrictions on use or disclosure;
   - independently developed by the me;
   - available without breach of this Agreement; or
   - produced or disclosed pursuant to applicable law, rule, regulation or court order;
4. I shall not disclose or use the Confidential Data in a manner in violation of this Agreement without the express written consent of the State Treasurer or Assistant State Treasurer;
5. I shall not disclose or use the Confidential Data in a manner that violates any law;
6. I will hold in strict confidence anything that is considered Confidential Data or proprietary within the meaning of this Agreement;
7. I shall not disclose to any person not specifically authorized to receive, have or view any Confidential Data or proprietary information;
8. disclosure or unauthorized use of any Confidential Data or proprietary information will cause irreparable harm and loss to the STO and may violate various laws of the State of West Virginia and the United States;
9. the STO may take whatever steps its considers appropriate to protect its Confidential Data, and in the event I disclose or use, or permit any disclosure or use of, any Confidential Data without authorization from the State Treasurer or Assistant State Treasurer, such steps may include termination of any agreement or arrangement under which I work;
10. I shall not use any Confidential Data as a basis upon which to develop or have another entity develop any product or service without the express written consent of the State Treasurer or Assistant State Treasurer; and
11. I will report, in writing, any unauthorized use or disclosure of the Confidential Data of which I become aware.

WITNESS THE FOLLOWING SIGNATURES:

| (STO) | (Recipient) |
|---|---|
| Signature: ____________ | Signature: Daniel W Lupton |
| Name: ____________ | Name: Daniel W. Lupton, FCAS, MAAA, CSPA, MBA |
| Title: ____________ | Title: Vice President |
| Date: ____________ | Date: March 2, 2021 |

# Purchasing Affidavit

STATE OF WEST VIRGINIA
Purchasing Division

# PURCHASING AFFIDAVIT

**CONSTRUCTION CONTRACTS:** Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

**ALL CONTRACTS:** Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

**EXCEPTION:** The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

**DEFINITIONS:**

**"Debt"** means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

**"Employer default"** means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

**"Related party"** means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

**AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.**

**WITNESS THE FOLLOWING SIGNATURE:**

Vendor's Name: Taylor & Mulder

Authorized Signature: Bobby Jaegers Date: 3/3/21

State of Missouri

County of Cole, to-wit:

Taken, subscribed, and sworn to before me this 3rd day of march, 2021.

My Commission expires February 5, 2025.

AFFIX SEAL HERE NOTARY PUBLIC Peggy Hull

PEGGY HULL
NOTARY PUBLIC - NOTARY SEAL
STATE OF MISSOURI
COMMISSIONED FOR COLE COUNTY
MY COMMISSION EXPIRES FEB. 05, 2025
ID #13445567

# Addendum Acknowledgement Form

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
*(Check the box next to each addendum received)*

| | |
|---|---|
| ☒ Addendum No. 1 | ☐ Addendum No. 6 |
| ☐ Addendum No. 2 | ☐ Addendum No. 7 |
| ☐ Addendum No. 3 | ☐ Addendum No. 8 |
| ☐ Addendum No. 4 | ☐ Addendum No. 9 |
| ☐ Addendum No. 5 | ☐ Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Taylor & Mulder, Inc
Company

Authorized Signature

March 2, 2021
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

Revised 02/10/2021