MIKE CHANEY
Commissioner of Insurance
State Fire Marshal

MARK HAIRE
Deputy Commissioner of Insurance

RICKY DAVIS
State Chief Deputy Fire Marshal

MISSISSIPPI INSURANCE DEPARTMENT

501 N. WEST STREET, SUITE 1001
WOOLFOLK BUILDING
JACKSON, MISSISSIPPI 39201
www.mid.ms.gov

MAILING ADDRESS
Post Office Box 79
Jackson, Mississippi 39205-0079
TELEPHONE: (601) 359-3569
FAX: (601) 359-2474

January 25, 2018

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Joe Shumaker, Manager
Mississippi Windstorm Underwriting Association
6455 Wirtz Road
Flowood, MS 39232

RE: Report of Examination as of November 28, 2018

Dear Mr. Shumaker:

In accordance with Miss. Code Ann. §§ 83-5-201 et seq. and 83-34-27 (Rev. 2011), an examination of the Mississippi Windstorm Underwriting Association has been completed. Enclosed herewith is the Order adopting the report and a copy of the final report as adopted.

Pursuant to Miss. Code Ann. § 83-5-209(6)(a) (Rev. 2011), the Mississippi Department of Insurance shall continue to hold the content of said report as private and confidential for a period of ten (10) days from the date of the Order. After the expiration of the aforementioned 10-day period, the Department will open the report for public inspection.

If you have any questions or comments, please feel free to contact me.

Sincerely,

MIKE CHANEY
COMMISSIONER OF INSURANCE

BY Kimberly Causey
Kimberly Causey
Special Assistant Attorney General

MC/KC/bs
Encls. Order w/exhibit

BEFORE THE COMMISSIONER OF INSURANCE
OF THE STATE OF MISSISSIPPI

IN RE: REPORT OF EXAMINATION OF MISSISSIPPI WINDSTORM UNDERWRITING ASSOCIATION **CAUSE NO. 18-7258**

ORDER

THIS CAUSE came on for consideration before the Commissioner of Insurance of the State of Mississippi ("Commissioner"), or his designated appointee, in the Offices of the Commissioner, 1001 Woolfolk Building, 501 North West Street, 10th Floor, Jackson, Hinds County, Mississippi, pursuant to Miss. Code Ann. §§ 83-5-201 et seq. and 83-34-27 (Rev. 2011). The Commissioner, having fully considered and reviewed the Target Report of Examination ("Report") together with any submissions or rebuttals and any relevant portions of the examiner's work papers, makes the following findings of fact and conclusions of law, to-wit:

JURISDICTION

I.

That the Commissioner has jurisdiction over this matter pursuant to the provisions of Miss. Code Ann. §§ 83-5-201 et seq. and 83-34-27 (Rev. 2011).

II.

That the Mississippi Windstorm Underwriting Association ("MWUA") was established by the Mississippi Legislature on April 14, 1987, to provide an adequate market for windstorm and hail insurance to the six coastal counties in Mississippi.

FINDINGS OF FACT

III.

That the Commissioner, or his appointee, pursuant to Miss. Code Ann. §§ 83-5-201 et seq. and 83-34-27 (Rev. 2011), called for a Target Examination of the MWUA and appointed Peter Robinson, Examiner-In-Charge, to conduct said examination.

IV.

That on or about October 27, 2017, the Report concerning the MWUA was submitted to the Department by the Examiner-In-Charge, Peter Robinson.

V.

That on or about November 28, 2017, pursuant to Miss. Code Ann. § 83-5-209(2) (Rev. 2011), the Department forwarded to the Company a copy of the Report and allowed the MWUA a 30-day period to submit a written submission or rebuttal to the Report. The written submission or rebuttal period was subsequently amended to require a due date of on or before January 15, 2018. On or about January 4, 2018, the MWUA responded via email to the Report.

CONCLUSIONS OF LAW

VI.

The Commissioner, pursuant to Miss. Code Ann. § 83-5-209(3) (Rev. 2011), must consider and review the Report along with any submissions or rebuttals and all relevant portions of examiner work papers and enter an Order: (1) adopting the Report of Examination as final or with modifications or corrections; (2) rejecting the Report of Examination with directions to reopen; or (3) calling for an investigatory hearing.

IT IS, THEREFORE, ORDERED, after reviewing the Report, all relevant examiner work papers and the MWUA's written submission, that the revised Report of the MWUA attached hereto as Exhibit "A", should be and same is hereby adopted as final.

IT IS FURTHER ORDERED that a copy of the adopted Report, accompanied with this Order, shall be served upon the MWUA by certified mail, postage pre-paid, return receipt requested.

IT IS FURTHER ORDERED that the Mississippi Department of Insurance shall continue to hold the content of this Report as private and confidential for a period of ten (10) days from the date of this Order, pursuant to Miss. Code Ann. § 83-5-209(6)(a) (Rev. 2011).

IT IS FURTHER ORDERED, pursuant to Miss. Code Ann. § 83-5-209(4) (Rev. 2011), that within thirty (30) days of the issuance of the adopted Report, MWUA shall file affidavits executed by each of its directors stating under oath that they have received a copy of the adopted Report and related orders.

IT IS FURTHER ORDERED that the MWUA take the necessary actions and implement the necessary procedures to ensure that all recommendations contained in the Report are properly addressed.

SO ORDERED, this the 25th day of January 2018.

COMMISSIONER OF INSURANCE MISSISSIPPI

MIKE CHANEY
COMMISSIONER OF INSURANCE

CERTIFICATE OF MAILING

I hereby certify that a true and correct copy of the above and foregoing Order and a copy of the final Report of Examination, as adopted by the Mississippi Department of Insurance, was sent by certified mail, postage pre-paid, return receipt requested, on this the 25th day of January 2018, to:

Mr. Joe Shumaker, Manager
Mississippi Windstorm Underwriting Association
6455 Wirtz Road
Flowood, MS 39232

Kimberly Causey

Kimberly Causey
Special Assistant Attorney General

Kimberly Causey
Special Assistant Attorney General
Counsel for the Mississippi Department of Insurance
Post Office Box 79
Jackson, MS 39205-0079
(601) 359-3577
Miss. Bar No. 10816

Mississippi Insurance Department

Target Report of Examination

of

MISSISSIPPI WINDSTORM UNDERWRITING ASSOCIATION

as of

November 28, 2017

TABLE OF CONTENTS

EXAMINER'S AFFIDAVIT AS TO STANDARDS AND PROCEDURES USED IN AN EXAMINATION

State of California,

City and County of San Francisco,

Peter C. Robinson, being duly sworn, states as follows:

1. I have authority to represent the Mississippi Insurance Department in the examination of Mississippi Windstorm Underwriting Association as of April 3, 2017.

2. Mississippi is accredited under the National Association of Insurance Commissioners Financial Regulation Standards and Accreditation.

3. I have reviewed the examination work papers and examination report, and the examination of Mississippi Windstorm Underwriting Association was performed in a manner consistent with the standards and procedures required by the Mississippi Insurance Department.

The affiant says nothing further.

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

____
Examiner's Signature

Subscribed and sworn before me by PETER C. ROBINSON on this 24th day of JANUARY, 20 18.

PRABHA GIRI
COMM. #2116276
Notary Public • California
San Francisco County
Comm. Expires Jun 19, 2019

(SEAL)

____
Notary Public

My commission expires 19 JUNE, 2019 [date].

MIKE CHANEY
Commissioner of Insurance
State Fire Marshal

MARK HAIRE
Deputy Commissioner of Insurance

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FAX: (601) 576-2568

November 28, 2017

Honorable Mike Chaney
Commissioner of Insurance
Mississippi Insurance Department
1001 Woolfolk Building
501 North West Street
Jackson, Mississippi 39201

Dear Commissioner Chaney:

Pursuant to your instructions and authorization and in compliance with statutory provisions, an examination has been conducted of the operations of:

MISSISSIPPI WINDSTORM UNDERWRITING ASSOCIATION
6455 Wirtz Road
Flowood, MS 39232

This examination was commenced in accordance with Miss. Code Ann. § 83-5-201 *et seq*. and Miss. Code Ann. § 83-34-27 and was performed in Flowood, Mississippi, at the statutory home office of the Association. The report of examination is herewith submitted.

Scope of the Examination

In March 2017, the Integro Group was appointed by the Mississippi Insurance Department to conduct a target examination of the Mississippi Windstorm Underwriting Association ("MWUA") and where applicable make recommendations to optimize alignment with its goals.

The purpose and scope of this target examination was to conduct a review of MWUA's reinsurance purchase for 2017 which included, but was not limited to, modeling results and benchmarks relied upon, pricing, capacity and processes and procedures related to committee and board approval of the aforementioned reinsurance purchase. The Department also reserved the right to expand the scope of this examination to prior years.

The procedures performed were based on a broad data request, meetings with board members, interviews of industry peers and private sector insurers, reinsurers, and intermediaries. A summary of our key findings begins on page 4.

Strategy and Governance

There is a misalignment of goals between the consensus of the board and the department of insurance. For the past few years, the majority of the board has viewed avoidance of an assessment as the primary strategic risk management goal. This sentiment has resulted in overly conservative reinsurance purchases over time as compared to the Department of Insurance (DOI) view. The DOI prefers prudent risk assumption with a focus on building surplus and fair rates over time. Moreover, there were lessons learned from the MWUA's experience with flood during Katrina that should reduce the degree to which the Wind Pool gets tagged with flood losses in the future. The DOI now requires proof of flood coverage as a prerequisite for MWUA coverage. Both strategies prioritize the financial security of MWUA, with the former strategy focusing on existing policyholders and the latter strategy focusing on existing and future policyholders.

The organizational structure of the MWUA does not require an accountable executive leader. Private sector analogs to the MWUA are specialty insurers, which are very rarely run by committee without an executive director. Joe Shumaker has done an excellent job as manager. He is well regarded by the Board, DOI and by the managers in other states. The rating bureau provides management but accountability is held by the board. In the absence of an executive, the board has become overly deferential to the reinsurance committee and/or the reinsurance broker.

Reinsurance Procurement Operations

MWUA can improve the benefit gained from annual trips to meet with reinsurance markets. The trips can be worthwhile and are a customary industry practice, but controls should be established around which board members participate. It is not clear who decides the mechanism by which board members are selected for participation in the trips. Introducing a formal, wider rotation of board members and documenting the meetings for the remainder of the board are sensible improvements. There is a danger that the trips can be viewed as privileges rather than as fiduciary necessities.

Further, the MWUA could provide leadership through the creation of a risk and reinsurance summit on the Gulf Coast. Invitations could be extended to all participating reinsurers. Collaboration with other states could be considered. This would bring the markets to the client rather than rely solely on market trips.

Reinsurance purchasing options are presented without sufficient time for members to review. In some cases the reinsurance broker provides materials the day of or the day before a final board decision is required. These technical documents should be delivered a minimum of one week before the decision is required.

The reinsurance procurement process is too compressed. The process takes place largely in the first quarter of each year. The rationale for this approach is it is unwise to engage with the reinsurance market in advance of the busy season associated with January renewals. It would be wise to stretch the process to include a preliminary budget as early as the third quarter of the year prior to the renewal.

Board education can be improved. The board consists largely of experienced insurance industry executives but can improve its understanding of technical reinsurance topics, including contracting and alternative options. The board may defer in some cases to the broker's superior expertise. A board education process resulting in the establishment of key metrics and decision support metrics would result in a more methodical decision process. We recommend that board education not be provided by the reinsurance broker or subcontracted vendors. Rather, independent industry experts can be secured through industry channels.

The board has considered alternative risk transfer mechanisms like catastrophe bonds but has not been presented with information around catastrophe swaps. Catastrophe swaps are a risk transfer tool where the MWUA would assume a portion of another state pool's program and that pool would in turn underwrite an equivalent layer within MWUA's reinsurance structure. Both pools reduce their reinsurance premium expense and diversify their risk. The board has explored options for collaboration and information sharing among a group of state wind pools with mixed results. Catastrophe swaps allow for bilateral relations that may enable more cooperation than a many-state agreement.

Insurance Rates

The insurance rate calculation does not align with industry practice. The actuarial rate calculation does not directly consider investment income or the surplus lines fee revenue that supports the MWUA budget. This does not necessarily imply consistently excessive or inadequate rates, but it makes it difficult for the board to determine if the rates are set at levels designed to build surplus over the long term or to break even. An alternative approach explicitly accounts for projected investment income, loads the rates for all the expenses associated with the policies underwritten, takes account of all premium and fee revenue, and has the board provide input on a return on equity target, even if the target is zero or negative.

Risk Assessment

The board does not annually quantify the value of the assessment that backstops its surplus. The board is very focused on avoiding the impact that a statewide assessment could have on Mississippi policyholders. Commercial insurers have access to modeling that quantifies this risk and disclose it to solvency regulators. The board should be provided with simple metrics that enable them to evaluate alternative strategies for pricing policies, buying reinsurance, and investing funds:

- What is the probability that an assessment will be required?
- What impact does the improved consideration of wind vs. water claims have on assessment?
- What is the expected value of the assessment?

- What is the probability that the assessment will exceed $100 million?

Vendor Compensation

The board's vendor has not disclosed all income sources. Reinsurance brokers' compensation for their work typically consists of a commission paid by the reinsurer and/or a fee paid by their client. These amounts are agreed in a multi-year contract between MWUA and its vendor. Brokers may receive other sources of income: 'enhanced commissions' from reinsurers and revenue sharing with subcontracted vendors. The board's contract with the vendor requires a formal disclosure of all sources of income on an annual basis. We were able to find a quantification of the amounts received through commissions, but were unable to confirm compliance with the disclosure requirement.

The board has no insight into the compensation of subcontracted vendors. MWUA's reinsurance broker, AmWINS, contracts with at least two other vendors to place the business with the reinsurance markets. The board does not require disclosure of the compensation paid to these vendors by AmWINS. This puts them at an informational disadvantage in negotiating a price for reinsurance brokerage services. A formal analysis of total compensation, including amounts paid to sub-contractors, presented in an annual report for the board would improve transparency.

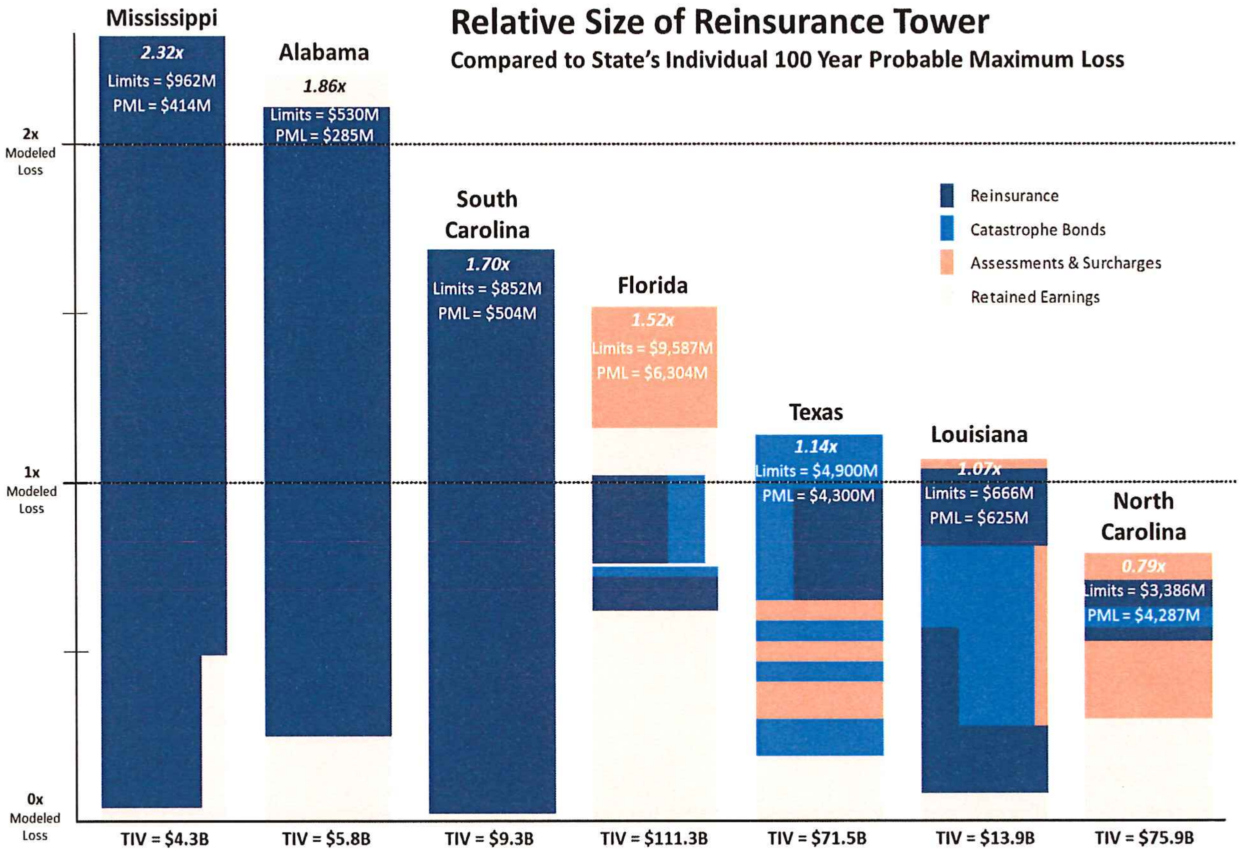
Vendor compensation rates are on the high-end of the industry standard. The reinsurance broker commissions are calculated as a percentage of the reinsurance premium purchased by MWUA. This is a common approach for reinsurance brokerage, but these standard rates are often discounted for large reinsurance purchases and for entities that serve the public interest like MWUA. We believe that MWUA's vendor costs may be reduced from current levels.

The vendor contract has a compensation "floor" level which appears unusually high. The floor was determined and contractually bound before the necessary reinsurance requirements were established. In addition to the level of commission, there is a guaranteed annual payment of $4 million, irrespective of how much reinsurance is purchased. This means that if MWUA buys more reinsurance, the vendor compensation increases, and if it decides to make less use of reinsurance the vendor compensation may not decrease proportionately.

The board does not offer performance incentive for its reinsurance broker. A standard industry practice is to make a portion of the compensation variable on performance. Common metrics used are pricing, timeline adherence, and documentation.

Adequacy of Limits and Deductibles and Price Efficiency

The chart below depicts the wind pool risk structure for 7 states relative to each state's individual 100 year Probable Maximum Loss (PML). The 100 year PML models the losses incurred in a large storm scenario that has a 1% possibility of occurring any year. Each state's risk structure size is the ratio of that state's total risk limit dollars to its 100 year PML. For example, Mississippi's funds risk for up to $962 million of claims, which is 2.32x its 100 year PML. This ratio is a measure of limits adequacy, and is higher than that of each of the state pools we analyzed.



MWUA's reinsurance structure includes a lower retention than a majority of its peers, which reduces the efficiency of its reinsurance purchase since reinsurance costs are highest at the bottom of the tower. The board members we interviewed were very focused on ensuring the solvency of the MWUA to avoid a statewide assessment on all insurance buyers. We compared the MWUA program to that of other state wind pools, other insurers, a scenario similar to Hurricane Katrina, and the deductibles that the pool's own insureds hold. A program with a higher retention would enhance the efficiency of the reinsurance purchase while freeing up funds to increase limits purchased at the top of the tower and/or to build surplus and minimize the likelihood of an assessment.

Our analysis shows that coinsurance could be used more selectively. Currently the MWUA is coinsuring layers where the market pricing is most competitive. We would recommend using coinsurance in layers where the markets are driving pricing to higher than average multiples of the average annual loss.

MWUA's strategy of using Direct & Facultative Insurance capacity to supplement Treaty Reinsurance capacity appears to be effective. Based on our analysis, the pricing charged by the Direct and Facultative (D&F) reinsurers is far more competitively priced than that of the treaty reinsurers. Some board members and state wind pools see this strategy as unorthodox, but the evidence indicates it has successfully achieved broader coverage at lower cost.

Exposure Data Management

The MWUA has undertaken significant steps to improve data quality as well as breadth of information available but our analysis of the exposure data shows room for improvement. In recent years, there has been an increased focus on the importance of collecting secondary modifier data to supplement the standard data normally input into the catastrophe models. The use of secondary data typically improves the accuracy of the modeling results. It was obvious based on our conversations with Joe Shumaker and the board that the MWUA is aware of the importance of the secondary modifier data and have taken steps to collect this data, while improving the overall accuracy of the information that is being collected.

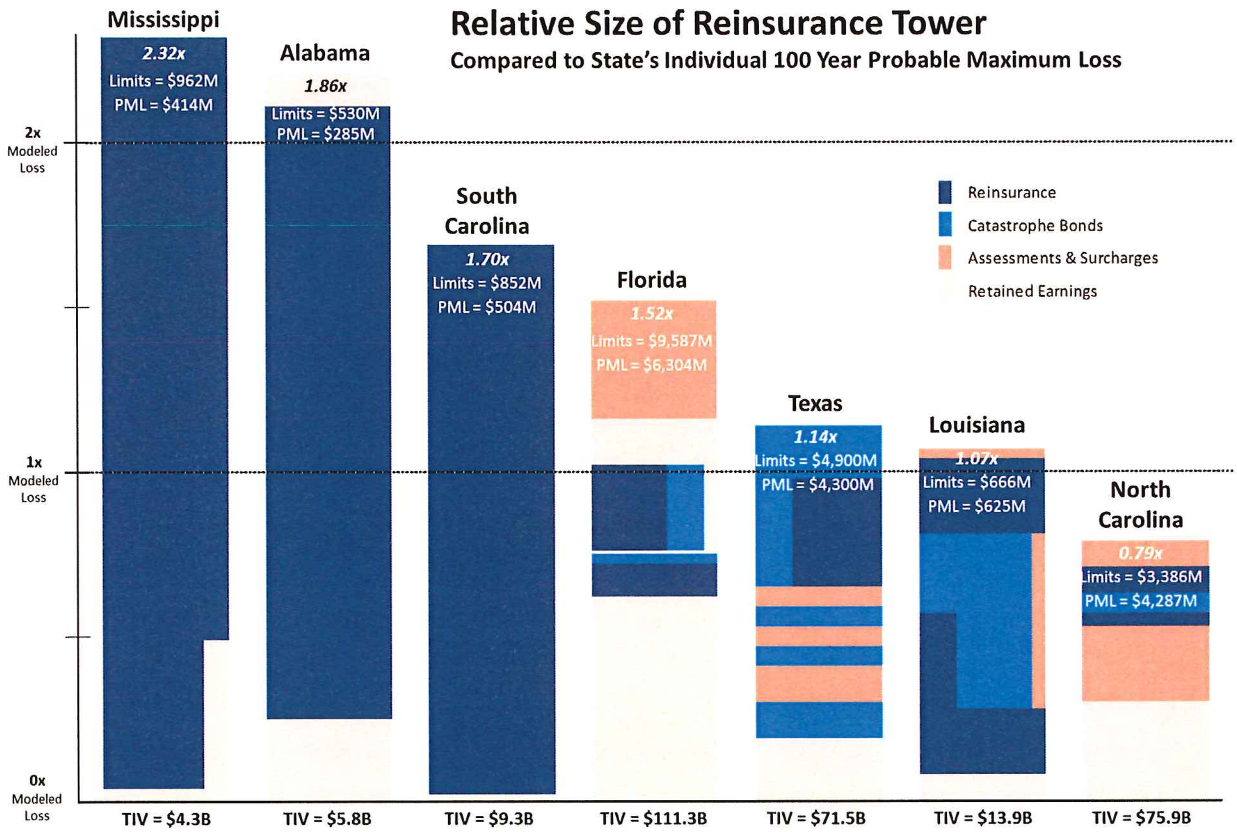
Key Recommendations

We recommend that the MWUA board take action to consider:

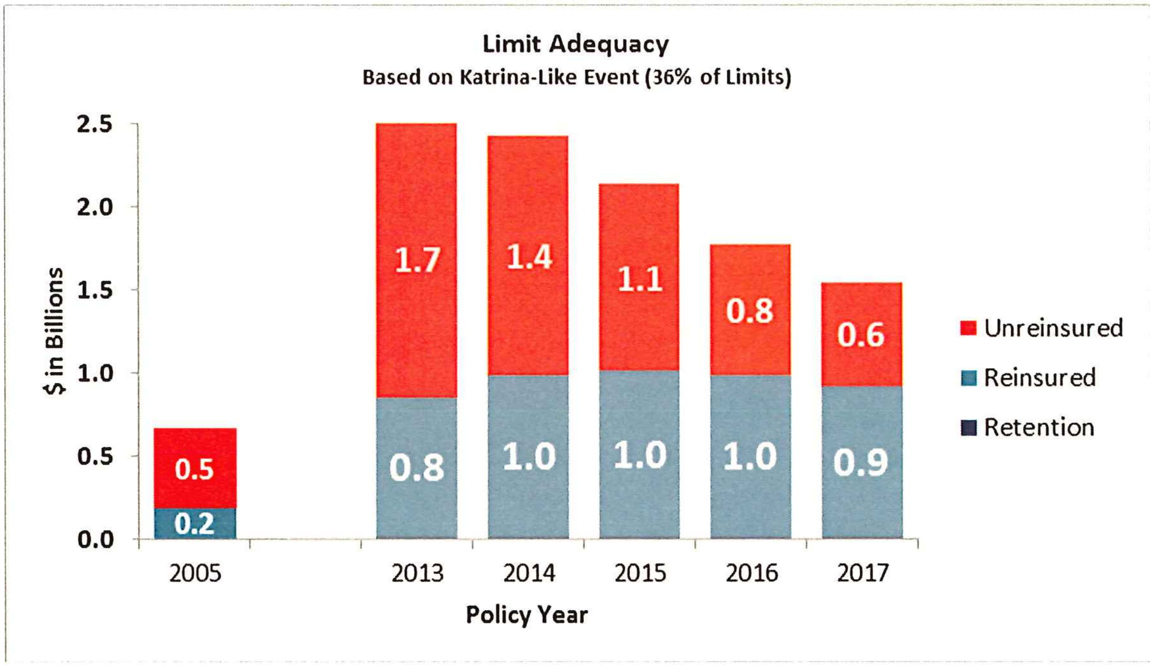
- Naming an executive director
- Modifying the actuarial rate analysis to consider all sources of income and expenses associated with the pool in setting rates
- Calculating the likelihood of an assessment as a key metric in evaluating reinsurance structures
- Inviting reinsurers to meet in the US with other wind pools
- Adjusting the board schedule to enable more education and time for consideration of reinsurance purchasing decisions
- Renegotiating the vendor contract to maximize transparency and cost efficiency in procurement
- Consider alternative program structure and/or reinsurance purchase vehicles such as Catastrophe Swaps

Modeling Appendix

Adequacy of Limits and Deductibles and Price Efficiency

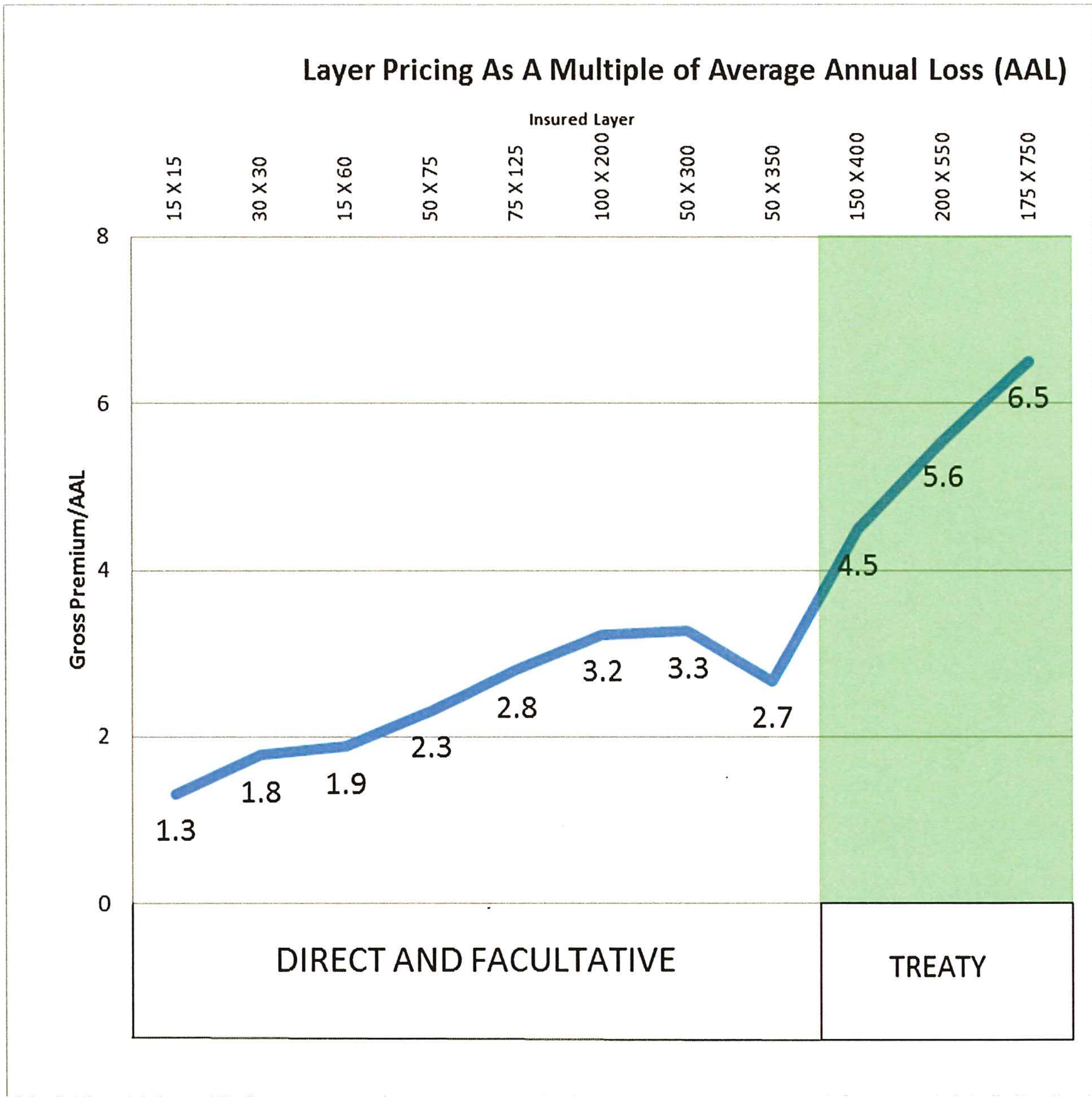


Current purchasing levels are on the higher end of the spectrum as compared with other state wind pools. However, they are within the range purchased by other large (re)insureds (250-yr to 1,000-yr. return periods). **When looked at within the context of the state's past experience with Hurricane Katrina and the Board's desire to avoid an assessment, the limits remain on the low side.** The Katrina loss represented roughly 35% of total limits in force at the time. Current program limits only equate to 21% of the total limits in force – a difference of over $600M. This analysis could be further improved with better data around what percentage of the Katrina claim represented flood vs. wind damage as the Board is confident that steps have been taken to educate their insureds about the need to purchase NFIP coverage for flood. According to estimates, some of the Katrina payout contained an element of otherwise uncovered damage created by water.

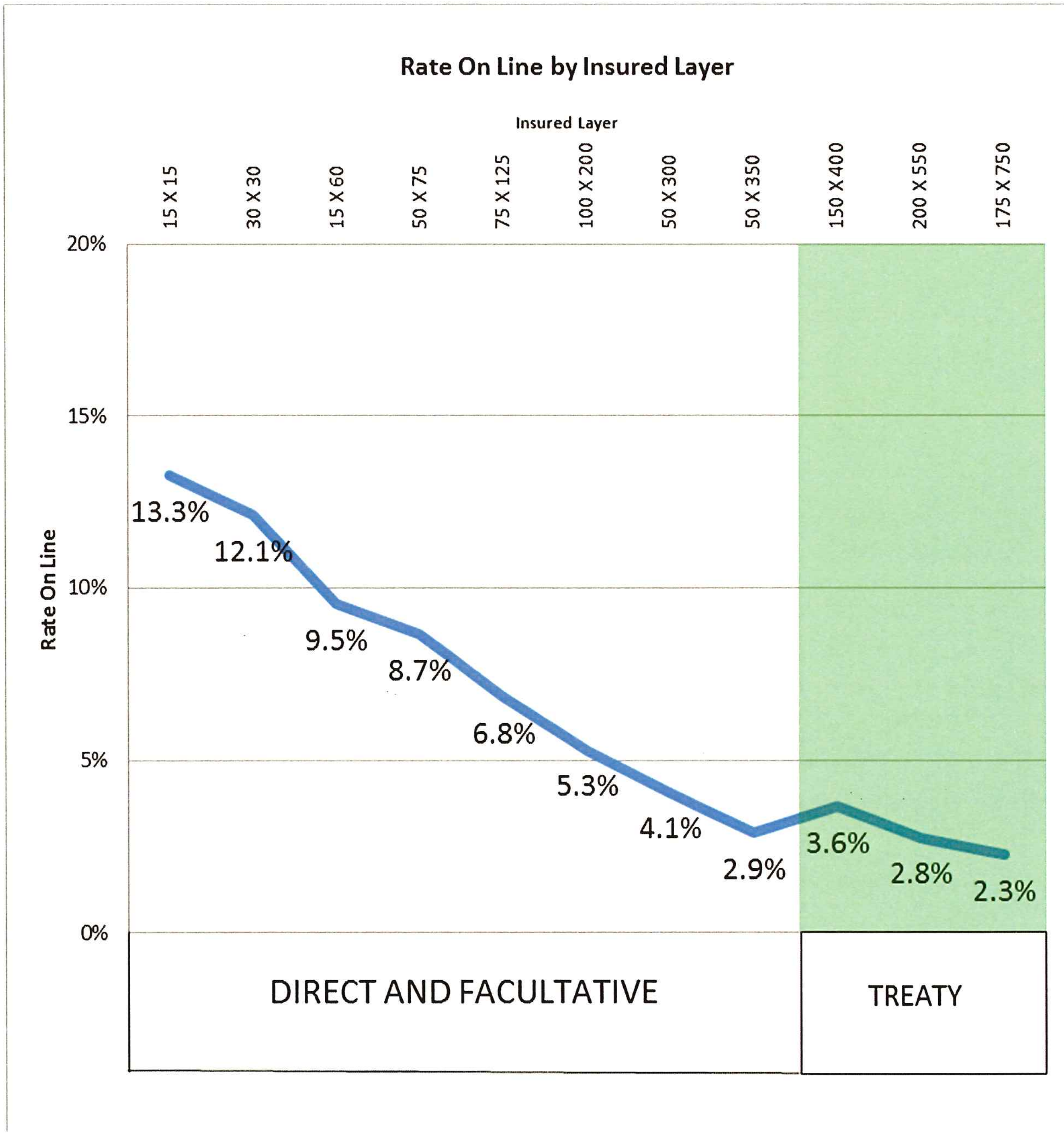


The current program retention of $15 million is exceptionally low compared to a majority of other wind pools. It is also exceptionally low when compared against the deductible that the pool imposes upon its own insureds. The minimum deductible offered by the wind pool to its insureds is 2% of insurable values. 2% of the limits in force for 2017 is $85.8 million compared with a primary retention of $15M and total self-insurance of $52 million. It is our belief that premium dollars and market capacity could be used more efficiently at a higher attachment point. Second event cover could be purchased for the retention if the MWUA is concerned about its surplus being wiped out by multiple events in a single year. Given the significant amount of windstorm capacity purchased, the MWUA has less pricing leverage with its insurers. Redeployment of capacity from lower layers of the program is a technique that can be used to drive more competitive pricing elsewhere in the program.

Strategy of using Direct & Facultative Insurance capacity to supplement treaty capacity appears to be effective. Based on our analysis, the pricing charged by the Direct and Facultative (D&F) markets is far more competitively priced than the treaty capacity. As summarized in the following chart, we examined the average pricing for each layer of the program as a multiple of the modeled Average Annual Loss (AAL). The D&F layers all ranged from 1.32 on the low end to 3.28 on the high end whereas the lowest multiple for the treaty markets begins at 4.5 with the top layer topping out at 6.51.



The higher multiple being paid for the Treaty layers may be partially blamed on the fact that high excess layers often go for a minimum price per million or a minimum rate on line. However, the rates on lines (ROL) are expected to decline as you climb higher up the program layers. In the below table, you will note that the 1st layer of treaty capacity ($150M xs $400M) is priced higher than the layer below it. This further demonstrates the price competitiveness of the D&F capacity being purchased. **As previously noted, an increased retention would free up some of the D&F capacity from lower layers allowing the MWUA to take greater advantage of its strategy to utilize this capacity within its placement.**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2.3%
DIRECT AND FACULTATIVE
TREATY

Exposure Data Management

Under Joe Shumaker's leadership, the MWUA has undertaken significant steps to improve data quality as well as breadth of information available but our analysis of the exposure data shows room for improvement. In recent years, there has been an increased focus on the importance of collecting secondary modifier data to supplement the standard data normally input into the catastrophe models. The use of secondary data typically improves the accuracy of the modeling results. It was obvious based on our conversations with Joe Shumaker and the board that the MWUA is aware of the importance of the secondary modifier data and have taken steps to collect this data, while improving the overall accuracy of the information that is being collected. Some of these steps include:

a. Inspections and re-inspections of properties

b. Employee based on coast to assist with data collection

We undertook an independent review of the data set to test for data quality and completeness. Although many unknowns remain, MWUA is clearly moving in the right direction. Some examples of the unknowns and errors that were identified include:

a. Roof type unknown for 28.7% of Coverage A limits

b. Lat/long missing for 78.5% of the policies on the schedule that we received

c. Small number of potential errors in lat/long, year built, etc. in <1% of policies

It should be noted that the amount of unknown information exceeds the "less than 1% unknown" advised by Joe Shumaker. Due to this disconnect, we believe there is a possibility that we were not given a complete data set.

ACKNOWLEDGMENT

The examiners representing the Mississippi Insurance Department and participating in this examination were:

Examiner: Megan Lee

Examiner: Peter C. Robinson

Actuary: Patrick Gallagher

The courteous cooperation of the officers and employees responsible for assisting in the examination is hereby acknowledged and appreciated.

Respectfully submitted,

Examiner-in-charge
Peter C. Robinson

MISSISSIPPI
WINDSTORM UNDERWRITING ASSOCIATION

P.O. Box 5389
Jackson, Mississippi 39296-5389
Phone (601) 981-2915
FAX (601) 981-2924
6455 Wirtz Road
Flowood, Mississippi 39232-7801

Date: 01-04-2018

To: Mike Chaney
Commissioner of Insurance
Mississippi Insurance Department
P.O. Box 79
Jackson, MS 39205-0079

RE: Examination Report - Mississippi Windstorm Underwriting Association

Dear Commissioner Chaney:

The Mississippi Windstorm Underwriting Association received the November 28, 2017 letter from David Browning (Director, Financial & Market Regulation) along with a copy of the draft target examination report.

The letter provides that MWUA is authorized to provide a written response or rebuttal with respect to any matters contained in the target examination report if submitted to the Mississippi Insurance Department within 30 days from the receipt of the letter. Due to the timing of the receipt of the report, MWUA requested additional time for the opportunity to respond or rebut and this requested was granted via email confirmation a due date no later than January 15, 2018. MWUA is making efforts to provide its response as soon as possible.

This letter will list the topic and will provide the MWUA response or rebuttal following the flow of the original letter. We respectfully request the response content be considered before finalization of the examination report with amendments applied as deemed appropriate by you and your staff.

MWUA MID Target Examination as of 11-28-2017

As an entity that was formed by the State of Mississippi to ensure that insureds in the lower six coastal counties have available property insurance we appreciate and respect the opinions noted by the examiner and have already begun addressing many of them. It is the Board's intention to cooperate fully with the Department's expectations to diligently devote its attention to its fiduciary responsibility to protect the assets of MWUA, its policy holders and the citizens of the State of MS. The opportunity to offer our reply and, in some cases, our contradictory opinions is appreciated and is submitted respectfully herein. We trust the Department accepts our reply as constructive, not argumentative, as the Board takes seriously its duty to be transparent and forthright in its reply.

Scope of the Examination

Including the target of the examination as described in the notification letter dated March 9, 2017 would be helpful in identifying the scope of the examination. *"It is the purpose and scope of this target examination to conduct a review of MWUA's reinsurance purchase for 2017 which shall include, but not be limited to, modeling results and benchmarks relied upon, pricing, capacity, and processes and procedures related to committee and board approval of the aforementioned reinsurance purchase. The department reserves the right to expand the scope of this examination to prior years."*

Strategy and Governance

There is some difference of opinion between the MWUA and the Mississippi Insurance Department (MID) pertaining to the appropriate amount of reinsurance that should be purchased by MWUA.

The Board believes that the MWUA and the MID, have the State of Mississippi, the policyholders and residents throughout the entire state's best interest in mind. The Board of Directors believes the mission of the MWUA can best be accomplished by encouraging a competitive voluntary wind insurance market for coastal Mississippi while providing Essential Property Insurance as defined in the enabling statutes creating the MWUA.

The statutory authorization creating and governing the operations and mission of the MWUA is Mississippi Code § 83-34-1 et seq, as annotated and amended, and provides in § 83-34-5 the MWUA powers and duties including (a) "To issue policies of essential property insurance."(c) *"To purchase reinsurance for all or part of the risks of the association;"*. MWUA has been successful in aiding the significant fulfillment of these goals while providing the best protection possible and affordable to protect all citizens of Mississippi from unnecessary assessments, premiums and surcharges. While protecting against a statewide surcharge may be viewed as *"overly conservative reinsurance purchases"* it is a prudent risk assumption.

The MWUA does understand that fair rates and building surplus for future hurricanes are important goals and have endeavored to meet such goals. We believe rates are fair considering the particular risks that MWUA insures. The rates presently charged by the MWUA were filed with, reviewed and discussed with the MID and were ultimately approved. The MWUA also believes that by charging actuarially sound rates in compliance with the requirements under the Mississippi statues creating the MWUA and by working with the MID that the property insurance markets, not only the coastal markets but the entire state of Mississippi, have been stabilized and new markets have opened. This is evidenced by the depopulation of MWUA policies to the voluntary market as shown in Exhibit #1. These successes would not have happened without the efforts of MID and the stabilization of the MWUA following Hurricane Katrina.

MWUA made its reinsurance purchases each year within budget and is reducing its reinsurance spend as its population is successfully declining. Prudent buying patterns and professional investment strategies allow the MWUA to build its surplus while funding its purchasing decisions. This is depicted in the table below.

	2014	2015	2016	2017*
Gross Premium	$75.1 million	$64.2 million	$51.99 million	$44.5 million
Out of Pocket Reinsurance Spend	$62.37 million	$56.5 million	$46.3 million	$38.4 million
Equity / Reserve	$205.6 Million	$218.6 Million	$231.6 Million	$250.2 Million

*Reflects year end estimates

The reduction in payments for gross premium and out of pocket spend aligns with the common goals of the MWUA and the MID to use prudent risk management assumptions to build surplus while supporting the reinsurance purchases to protect the association, policyholders and potential Mississippi citizens who could be faced with surcharges in the event of a MWUA deficit.

MWUA has balanced these missions and objectives well and taken advantage of the soft reinsurance market, our innovative multi-year buying patterns, and the alternative capital available in the marketplace.

After extensive discussion with the MID the MWUA made the prudent decision to require proof of flood coverage as a prerequisite to MWUA coverage in certain areas to address the wind vs water issues that normally arise following most major hurricanes. One of the many harsh lessons Hurricane Katrina taught the MWUA and other insurers was that the inclusion of flood insurance alone does not prevent the disputes regarding wind vs water that will likely occur in future events since the same wind versus water problem will still likely exist albeit to a possibly lesser extent. While it is possible that a portion of claims might have been created by water, due to the length and costs associated with fighting some of these issues, the Board of the MWUA made the decision to pay claims as best as they could given the facts and legal situations at that time. MWUA never made it a policy to pay water claims or other claims that were not owed under MWUA policies in place at the time of the claim. The MWUA has and always will seek to settle claims based solely on policy language and coverage. The comment in the Modeling Appendix on page 9, *"According to some estimates as much as 80% of the Katrina payout was related to flood claims."* is respectfully disputed and believed to be unfounded.

The comments above are why we feel there's a difference of opinion and not a "misalignment of goals" but regardless the Board wants to avoid that perception. As a result the MWUA will establish a committee to work with MID to better understand and hopefully resolve our difference of opinions.

Organizational Structure

We appreciate the comments related to the great job Joe Shumaker has done. The MWUA believes that its experienced staff along with the expertise and experience of the Board are beyond reproach and recognized as leaders in their respective fields around the country. While Joe Shumaker's title is one of Manager, this is not uncommon among residual plans nationwide. Joe Shumaker has and continues to display a wealth of institutional knowledge and is well informed on issues affecting MWUA and the insurance industry from his involvement with industry organizations such as PIPSO where he continues to serve on the Board of Directors and is immediate past chair of its Board.

The MWUA needs to be and is in a cooperative and professional relationship with Joe Shumaker and its insurance broker, and we respectfully disagree the Board as a whole or any Board member has become "overly deferential" to the reinsurance committee or reinsurance brokers. Joe Shumaker makes many day to day decisions without the involvement of the Board but buying decisions on reinsurance are arrived at only after a thorough examination by a consensus of the entire Board with advice and recommendations from Mr. Shumaker, other staffers and our actuary as we feel this this is too big of a decision for any one person or committee.

The MID examination of the MWUA in 2013 encouraged increased Committee activity as an efficient means of handling important MWUA decisions. Following that examination the Board of the MWUA committed to maintaining competent, accountable executive leaders and will continue to do so in the future. Our commitment includes a recommendation by the board to evaluate the need for an Executive Director.

REINSURANCE Procurement Operations

MWUA agrees that annual marketing trips with reinsurance markets are both customary industry practices for large risk like the MWUA and proven to be very worthwhile in securing favorable coverage terms at the best prices. Those serving on the reinsurance committee as well as other board members have made marketing trips or have been invited to do so based on their availability. Being a "volunteer board", professional schedules often conflict with reinsurance marketing trips of a week in duration. All Board members have been encouraged to participate in these trips. The viewing of the marketing trips being considered as a possible "privilege" is unfounded. Instead it's more of a sacrifice as it's extremely difficult for board members to take this many days out of their schedule especially during the first quarter of the year. However, they do it as the trips are a valuable tool with intense and time consuming schedules for all involved but they have achieved significant favorable results for the MWUA and its policyholders, and will continue to pay dividends in the future in the reinsurance marketplace, especially in post loss years.

Recent additional efforts have been made to ensure all Board members are aware of upcoming reinsurance market meeting dates and given the opportunity to participate. This year resulted in a continued limited number of board members being able to attend but we hope to have more diverse participation in the future.

The Report referenced holding a reinsurance summit on the Mississippi Gulf Coast. The MWUA meets with over 30 carriers in a 4-5 day period which would be almost impossible to accomplish by requesting the carriers to attend a local reinsurance summit. We will be glad to initiate discussions with other residual wind markets, but we believe that the one on one contact will be lost in these summits. With that being said, MWUA has hosted several visits from various carriers on MWUA's program with the latest being in October of 2017 by Hiscox.

Reinsurance Purchase Options

The MWUA Board of Directors and the Reinsurance Committee takes the decision making on the purchase of reinsurance seriously and is actively engaged in the process throughout the entire year. Reinsurance is a topic that is discussed at each Board meeting throughout the year and the reinsurance committee remains active in its analysis of the program thru a variety of committee meetings as indicated in all Board meeting minutes and Committee Action Reports. The reinsurance purchase decision is not taken lightly and is not a rushed decision. Comments in this audit seem to acknowledge this level of involvement by inferring the level of Committee involvement as "overly deferential". While there are certain firm order details that are only available immediately prior to renewal the process of goals and objectives, modeling and marketing strategy takes place months prior to the renewal anniversary. The MWUA Board has requested materials be provided further in advance of renewal dates to help ensure all Board members have sufficient time to evaluate the options. If there are any areas where a Board member is concerned with the options or material they have the opportunity to request additional time or materials.

Board Education

While the Board consists of very knowledgeable experienced individuals we agree that Board education can always be improved and the Board always strives to ensure that the staff and the Board are knowledgeable and educated on all issues before the Board. To this purpose, at the December 7, 2017 Board meeting the Board held and educational work session entitled "Reinsurance 101" to both refresh the Board's understanding and review expectations and all aspects of reinsurance. Sessions were conducted by a broad spectrum of industry professionals from around the country and included a refresher on reinsurance terminology, definitions and standards, session on purchases from the buyer's perspective, processes, protocols and standard practices in reinsurance broking, reinsurance from the treaty provider's perspective from a Direct and Facultative provider's perspective, and discussions of CAT bonds and alternative capital marketplaces from the provider's perspective.

In addition to the above the Staff and Board stay abreast of the reinsurance market and trends via trade publications and participating in related symposiums/conferences and networking with other residual plans around the country when able. The Board is committed to holding additional educational sessions in the future including sessions with other residual markets so we can better understand each other's structures and goals.

CATASTROPHIC SWAPS

The MWUA will always consider and be open to discuss alternative risk transfers and protections of its insureds and the MWUA. The "Catastrophe Swaps" that are suggested in the Report have multiple problematic issues that would need to be considered and reviewed prior to any discussion or actions. They can be discussed and examined, but due to the nature of the MWUA's mission to provide a market of last resort in the six coastal counties of Mississippi there are concerns regarding the legality of such endeavors. There are concerns from the Board's prospective regarding the funds of the MWUA being used to pay claims or even purchase reinsurance for risks in other states. The legality of such an action would need to be addressed and if necessary legislative changes might be needed. As noted above while the "Swaps" sound good on the front end there are legitimate statutory and public policy concerns regarding other states potential losses being paid with MWUA policyholder monies. This could result in rate increases for the MWUA policyholders and possible assessment on all policyholders in Mississippi. These risks and concerns requires that this issue be completely and thoroughly examined to see if it is legal under the existing statutory framework. MWUA's enabling legislation, the MWUA By-Laws and Plan of Operation all seem to limit MWUA's authority to enter into suggested Cat Swaps since they don't involve Mississippi risks.

The statutory authorization creating and governing the MWUA is Mississippi Code § 83-34-1 et seq, as annotated and amended, and provides in § 83-34-1(d) that "insurable property means real property and contents therein when requested, at fixed locations in the coast area...". In the same code section, subsection (f) defines "coast area" as:

> "Coast area" means Hancock, Harrison, Jackson, Pearl River, Stone and George Counties."

Section 83-34-3, which created the organizational structure of the MWUA, states in subsection (4) "...the premiums, assessments, fees, investment income and other revenue of the association are funds received for the sole purpose of providing insurance coverage, paying claims for Mississippi citizens insured by the association, securing and repaying debt obligations issued by the association, and conducting all other activities of the association, all as required or permitted by this chapter...".

The MWUA is authorized to purchase reinsurance for all or part of its risk but the Board can find no clear statutory authorization for the MWUA to act as a reinsurer for another state's residual plans. However, if that is something the Mississippi Insurance Department wishes to pursue then we will be glad to participate in discussions on same.

INSURANCE RATES

The Board retains an independent actuary to conduct annual rate analysis. Chris Burkhalter is a reputable local actuary who has been performing MWUA rate analysis for over 19 years. Chris also represents other residual wind markets, other insurance departments and multiple commercial and governmental entities. Chris confirmed that his analysis and rate filings with the MID contemplates all of the revenue and expense of the MWUA. This is reflected in the 2016 analysis (Exhibit #2) which provided indications for base scenario along with inclusion of Return on Investment (ROI) & Surplus lines income. Although the 2017 presentation did not include an explicit slide on the ROI and Surplus Lines income, the impact of these on the indications were discussed with the Board as indicated in the minutes and the provided analysis (Exhibit #3). All such items are quantified and discussed with the Board each year. MWUA's goal to provide fair, stable but non-competitive rates while growing surplus for future storms is a major factor for accepting the base scenario without combining ROI & Surplus Lines income. The sustainability of fees from surplus lines isn't certain, but has been viewed as a source to build surplus along with the ROI.

RISK ASSESSMENT

MWUA staff annually calculates the statewide written premium and the amount of funds potentially available by the Assessable Insurers along with estimated recoupments and forfeited recoupments should the MWUA incur a deficit(See Exhibit #4). In 2015 MWUA engaged its actuary Chris Burkhalter to provide a *"Probability of Assessment Analysis"*(Exhibit #5) with purpose of assessing the probability of an assessment based upon current exposure, reinsurance coverage and surplus availability. This was updated with the 2016 Rate Analysis on Page 9 of Exhibit #2. This process is scheduled to be conducted again in upcoming months with additional detail as to the impact of an assessment/surcharge to the citizens of Mississippi. MWUA acknowledges that it has no statutory authority to surcharge the citizens of Mississippi. The laws of the state of Mississippi place assessment/surcharge authority exclusively with the Commissioner of Insurance should MWUA experience a deficit who then shall impose an assessment/surcharge. MWUA is working diligently to help the DOI develop assessment/surcharge process and procedures including deficit examples of how statewide policyholders are impacted along with impact to carrier's collection of said surcharges.

In 2016 the MWUA Board adopted a formal reinsurance "Purchasing Standard"(Exhibit #6) to help identify components which should be considered in its purchase decisions such as modeling results, probability of assessments, depletion of surplus and continuing operation expense post storm.

Because the challenge of protecting against the next major catastrophe is an educated guess at best and there will never be a mathematically precise formula for what MWUA's risk is. MWUA would welcome simple metrics that could aid in its decision making process. The Board is also conscious its Board members were sued for buying *too little* reinsurance in the post-Katrina scenario based on reliance on the information provided by the "models' available and relied on at the time. As a result of the Katrina claims the board had to assess the insurance industry approximately $545 million which created significant turmoil in the insurance industry. As a result of that turmoil the MWUA and its attorney at the time worked with the staff of the MID to create the current statues governing the MWUA.

VENDOR COMPENSATION

The Board appreciates the MID's concerns raised regarding the compensation of the reinsurance broker. Several of the points raised in the draft Report are legitimate points and in all future reinsurance transactions the Board will factor those issues into any decisions made.

The current vendor contract was presented to the entire board on May 26, 2016 and was unanimously approved. In hindsight had we been able to predict the current competitive soft reinsurance pricing and tremendous success of plan depopulation, broker compensation ranges would likely have been set differently, with lower minimums. However not relying strictly on formulas serve a purpose as compensation being based strictly on formulas could possibly be a disincentive for the broker to place your program at the best terms and pricing available.

If any disclosures regarding fees and costs have not been transparent per contract, the MWUA will make every effort to satisfy the contractual requirements for such disclosure and refine what information is required from the broker and any vendor that places business in the reinsurance purchase. During the examination an inquiry was requested for full disclosure of all compensation of the broker, which resulted in nothing of concern. MWUA will continue requesting full disclosure in future as per contract requirements.

As noted above the Board has always been and will continue to be acutely aware of costs paid to any vendor, including the reinsurance broker. MWUA will entertain discussions with its broker concerning possible adjustments to minimum compensation on the upcoming renewal. As a result of the comments and concerns of the MID the MWUA will require that all future reinsurance brokers provide more information to the MWUA including any commissions paid to its broker from the reinsurers and any experience related commissions. MWUA is conducting a Request for Proposals (RFP) to select its broker following the expiration of the current contract in October 2018 and efforts will be made to focus on a compensation package that is both fair and offers suggested performance incentives and transparency.

ADEQUACY OF LIMITS AND DEDUCTIBLE AND PRICE EFFICIENCY

Prior to Hurricane Katrina the MWUA believed that it had an adequate catastrophe protection plan, but as history now knows that was not the case and the MWUA ended up assessing the insurance industry approximately $545 million which resulted in chaos in the Mississippi property insurance market and litigation against the Board of Directors for insufficient reinsurance purchases. Also, following Katrina the

MID and the Governor's Office negotiated a one-time federal grant to help offset reinsurance costs. Also, the State of Mississippi infused approximately $100 million into the MWUA to help offset the costs of reinsurance. The federal grant was a one-time infusion and it is not likely to occur again especially since no other residual wind program has been able to secure such federal grants since Katrina. The Board definitely considers models but we do so cautiously as prior to Katrina, which occurred 36 years after Camille, the Board purchased to a 250 year PML of $175 million while actual Katrina losses were over $700 million. (See Exhibit #7) Models have improved since then but to date haven't proved to be totally reliable.

While the MWUA has always been prudent in its purchase of reinsurance the charts in this report clearly demonstrate that the MWUA has been successful in securing very comprehensive protection at significantly declining costs, while maintaining stable fair rates and building surplus. MWUA's Manager has confirmed with South Carolina Wind Pool that South Carolina has a lower retention (10M) than MWUA (15M), therefore the statement that *"MWUA's reinsurance structure includes a lower retention than those of its peers"* appears incorrect. MWUA is always open to new ideas and placement strategies that could even further enhance its protection. Being open to innovative ideas and products is what led to the incorporation of the D&F layers of its coverage which is confirmed in this report to have *"successfully achieved broader coverage at a lower cost."*

Information can be gained in reviewing what wind pools in other states are doing. However, in many cases we feel it is a disproportional comparison as there are many differences such as litigation experience in previous storms, the size and intensity of previous storms, the amount of capital to be protected, statutory exposures of citizens subject to assessment, etc. In addition to the items outlined in our Reinsurance Purchase Standards we consider many other factors in making our reinsurance purchase decision such as:

- The pros and cons of putting our capital at risk when the reinsurance market is soft.
- Is our rate on line for reinsurance higher or lower than our investment income.
- Are there significant cost savings by increasing our retentions at the bottom of or throughout our tower.
- How do we best position ourselves for large events but also multiple smaller events. This is reflected in the various storm scenarios and purchase options outlined in Renewal Option Summary (Exhibit #8)
- How do the models compare to our specific experience. For example, our Katrina loss represented approximately 39% of our limits in force while our 2017 purchase was equal to approximately 21% of our limits in force, which seems reasonable due to the coast being built back further from the gulf, improved building codes and MWUA's flood coverage requirement.

EXPOSURE DATA MANAGEMENT

We appreciate the recognition of the significant steps and effort MWUA has taken to improve its data quality and MWUA remains committed to continue improvement in this area. In 2017 MWUA increased efforts by staff to update its risk details to reflect the information obtained via on-site inspections. This resulted in an improvement of the data reflected in the 11-1-2017 data as compared to the 11-1-2016 data. For instance the 11-1-2017 data indicates only 45 risks with unknown roof types out of 26,952 or .2%. We acknowledge that the data sets are incomplete pertaining to missing Lat/long coordinates. Our review of this issue revealed that while the Lat/long coordinates have been gathered and entered into the policy management system, the query provided did not return them. We are working with our software vendor to resolve this issue. A summary of the risk data geocode method is included in Exhibit 9 which shows approximately 60% are geocoded to the parcel level.

KEY RECOMMENDATIONS

Several of the recommendations have already been implemented by the Board as good governance practices such as a discussion of the actuary rate analysis, more Board education, renegotiating vendor contracts with cost efficiency and procurement as one of the primary goals. The Board has recommended a Committee evaluate the need for an Executive Director.

The Board considers alternative structures each and every year and will make an examination operationally, legally, and otherwise as to "catastrophic swaps" to see if this is an attractive, allowable and legal alternative to consider.

Please advise if you have any questions on any of the items addressed above. As we understand the process, the report will be finalized after the review of this response.

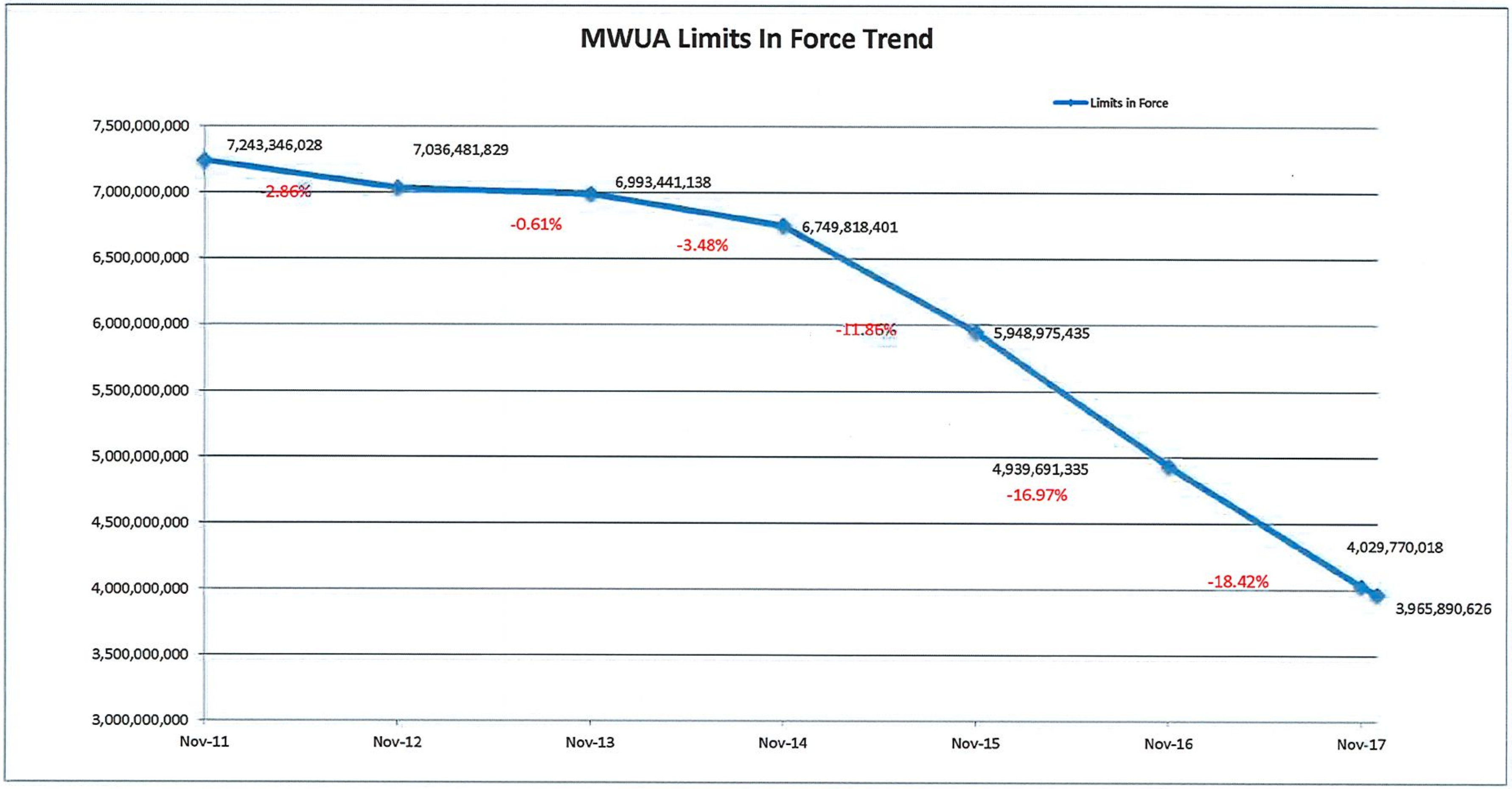
Once finalized, within (30) days of the issuance of the adopted report, the Association shall file affidavits executed by each of its directors stating under oath that they have received a copy of the adopted report and related orders.

The MWUA Board and the staff of the MWUA appreciate the effort of the MID and its exam team and look forward to working with the MID to address any issues or concerns the MID may have. We believe the MWUA and the MID have the same ultimate goals which is to ensure that the citizens of Mississippi in all 82 counties are protected.

Sincerely,

Jeffrey Carver
Chairman
Mississippi Windstorm Underwriting Association

EXHIBIT #1



MWUA Limits In Force Trend
Limits in Force
7,500,000,000
7,000,000,000
6,500,000,000
6,000,000,000
5,500,000,000
5,000,000,000
4,500,000,000
4,000,000,000
3,500,000,000
3,000,000,000
Nov-11
Nov-12
Nov-13
Nov-14
Nov-15
Nov-16
Nov-17
7,243,346,028
-2.86%
7,036,481,829
-0.61%
6,993,441,138
-3.48%
6,749,818,401
-11.86%
5,948,975,435
-16.97%
4,939,691,335
-18.42%
4,029,770,018
3,965,890,626

EXHIBIT #1

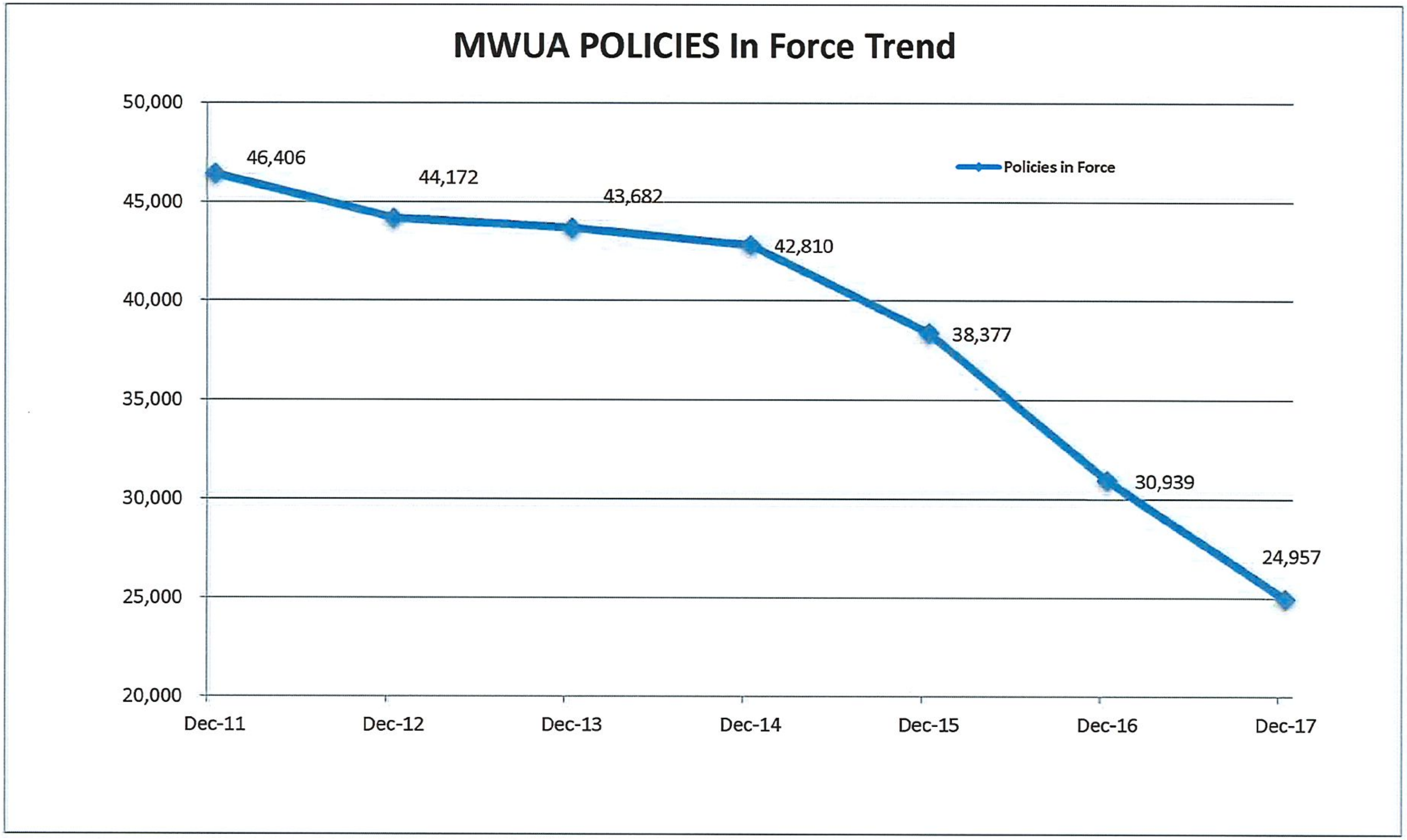

MWUA POLICIES In Force Trend
Policies in Force
50,000
45,000
40,000
35,000
30,000
25,000
20,000
46,406
44,172
43,682
42,810
38,377
30,939
24,957
Dec-11
Dec-12
Dec-13
Dec-14
Dec-15
Dec-16
Dec-17

EXHIBIT #2

Mississippi Windstorm Underwriting Association

<u>**Highlights of:**</u>

Actuarial Rate Analysis 2016

Presented by:
Christopher J. Burkhalter, FCAS, MAAA
President & Principal

Mississippi Windstorm Underwriting Association

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Bickerstaff Whatley Ryan & Burkhalter
CONSULTING ACTUARIES

EXHIBIT #2

Bickerstaff Whatley Ryan & Burkhalter
CONSULTING ACTUARIES

THE BASE SCENARIO

- ***Reinsurance pricing by AmWINS Group***
- ***RiskLink Version 15.0 and AIR Touchstone Version 3.0 (avg. of historical and stochastic perspectives)***
- ***0% underwriting profit target***
- ***Inclusive of policy fees***
- ***Exclusive of surplus-lines fee income***
- ***New Commercial deductibles***

MWUA
Mississippi Windstorm Underwriting Association

Bickerstaff Whatley Ryan & Burkhalter
CONSULTING ACTUARIES

THE BASE INDICATION

Percentage of Premium		
Non-hurricane claims:	1.2%	1.2%
Retained hurricane claims:	11.6%	11.9%
Reinsurance cost:	81.2%	73.7%
Overhead expense:	7.4%	6.0%
Commissions:	10.5%	10.4%
Total:	111.9%	103.2%

Indicated Rate Change:

+13.4% **+3.7%**

MWUA
Mississippi Windstorm Underwriting Association

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CONSULTING ACTUARIES

Rate Indications by Segment

Segment	Projected Premium	Indicated Rate Change	Last Year
Dwelling	55,011,878	+ 15.3%	-5.0%
Commercial	2,656,845	- 18.7%	+90.2%
Mobile Home	1,431,277	- 0.1%	-24.5%
Overall	59,100,000	+ 13.4%	+3.7%

MWUA
Mississippi Windstorm Underwriting Association

EXHIBIT #2

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Uncertain Reinsurance Costs

$47 M	**$48 M**	**$49 M**
+11.5%	**+13.4%**	**+15.3%**

Mississippi Windstorm Underwriting Association

EXHIBIT #2

Bickerstaff Whatley Ryan & Burkhalter
CONSULTING ACTUARIES

ROE & Surplus Lines Income

Base Scenario	+ 9.3%	**+13.4%**	+ 17.7%	+ 27.5%	+ 53.0%
UW Profit	-3.37%	**0.00%**	3.27%	9.90%	23.18%
ROE	0.00%	**1.25%**	2.50%	5.00%	10.00%

$11M Surplus Lines	-9.0%	**-6.2%**	- 3.3%	+ 3.3%	+ 19.4%
UW Profit	-22.05%	**-18.73%**	-15.41%	-8.77%	4.50%
ROE	0.00%	**1.25%**	2.50%	5.00%	10.00%

MWUA
Mississippi Windstorm Underwriting Association

EXHIBIT #2

Mississippi Windstorm Underwriting Association

Highlights of:

Actuarial Rate Analysis - Updated 2016

Presented by:

Christopher J. Burkhalter, FCAS, MAAA
President & Principal

Mississippi Windstorm Underwriting Association

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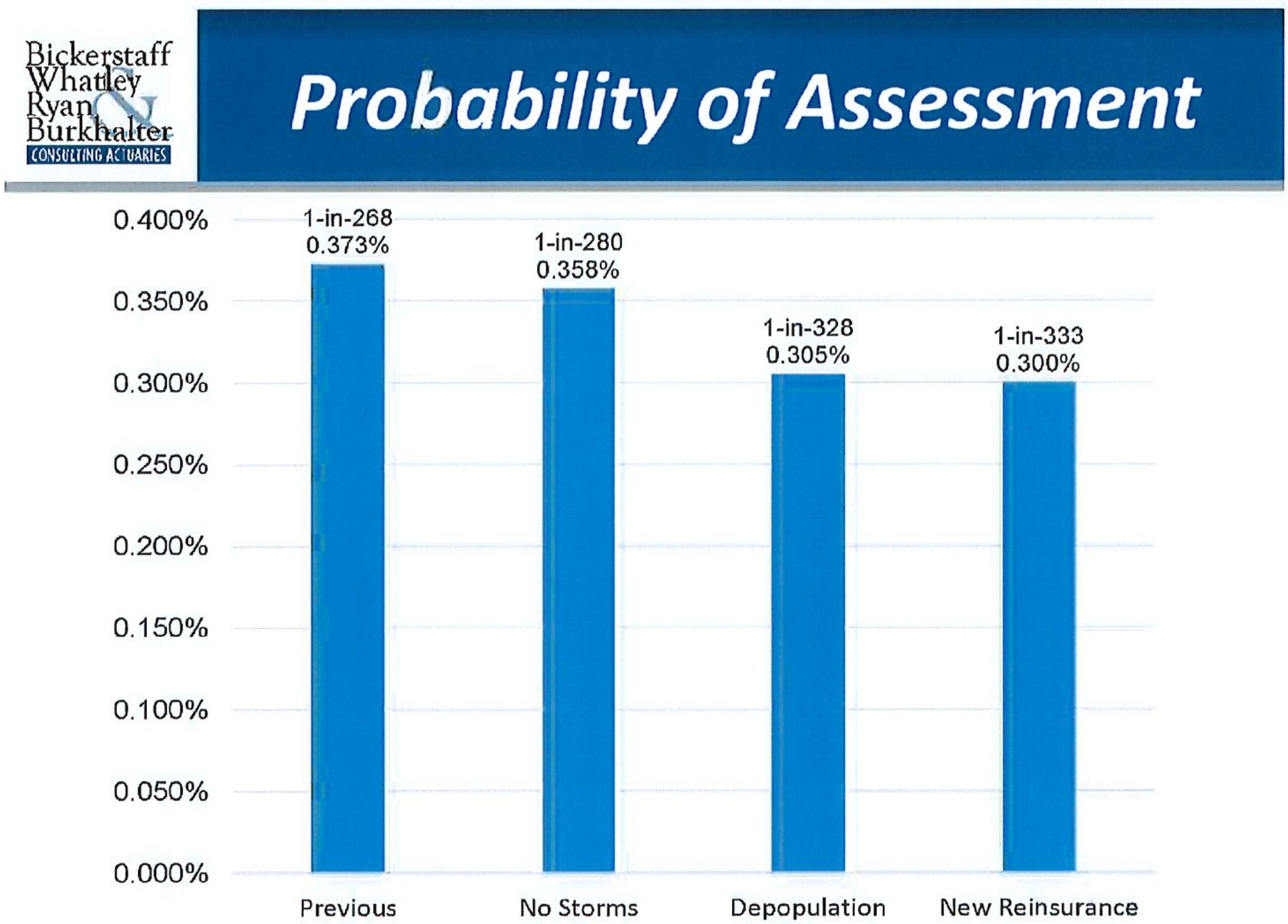
CONSULTING ACTUARIES

Updated Rate Indications

		Previous	Current	Change	
(a)	Non-Hurricane Loss & ALAE Ratio:	733,046	733,046	0	*0.0%*
(b)	Retained Hurricane Loss & ALAE Ratio:	6,872,950	6,602,832	-270,118	*-3.9%*
(c)	Reinsurance:	48,000,000	45,668,173	-2,331,827	*-4.9%*
(d)	Fixed Expenses:	4,372,394	4,372,394	0	*0.0%*
(e)	Variable Expenses:	7,036,571	6,731,315	-305,256	*-4.3%*
(f)	Underwriting Profit Target:	0	0		
(g)	Indicated Premium:	67,014,961	64,107,760	-2,907,201	*-4.3%*
(h)	Projected Premium:	59,100,000	59,100,000		
(i)	Indicated Rate Change:	13.4%	8.5%		

EXHIBIT #2



Bickerstaff Whatley Ryan & Burkhalter
CONSULTING ACTUARIES
Probability of Assessment
0.400%
0.350%
0.300%
0.250%
0.200%
0.150%
0.100%
0.050%
0.000%
1-in-268
0.373%
1-in-280
0.358%
1-in-328
0.305%
1-in-333
0.300%
Previous
No Storms
Depopulation
New Reinsurance

Mississippi Windstorm Underwriting Association

Highlights of:

Preliminary Actuarial Rate Analysis 2017

Presented by:
Christopher J. Burkhalter, FCAS, MAAA
President & Principal

Mississippi Windstorm Underwriting Association

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THE BASE SCENARIO

- *Reinsurance pricing by AmWINS Group*
- *RiskLink Version 15.0 and AIR Touchstone Version 3.0 (avg. of historical and stochastic perspectives)*
- *0% underwriting profit target*
- *Inclusive of policy fees*
- *Exclusive of surplus-lines fee income*

Bickerstaff Whatley Ryan & Burkhalter
CONSULTING ACTUARIES

THE BASE INDICATION

Percentage of Premium		
Non-hurricane claims:	1.2%	1.2%
Retained hurricane claims:	11.1%	11.2%
Reinsurance cost:	81.8%	77.3%
Overhead expense:	7.6%	7.4%
Commissions:	10.1%	10.5%
Total:	111.8%	107.6%

Indicated Rate Change:

+13.0% **+8.5%**

Bickerstaff Whatley Ryan & Burkhalter
CONSULTING ACTUARIES

Rate Indications by Segment

Segment	Projected Premium	Indicated Rate Change	Last Year
Dwelling	44,368,555	+ 15.4%	+10.3%
Commercial	2,060,624	- 26.7%	-22.2%
Mobile Home	1,270,821	- 4.5%	-4.0%
Overall	47,700,000	+ 13.0%	+8.5%

Mississippi Windstorm Underwriting Association
Actuarial Rate Analysis 2017
Extended Coverage (Wind Only)
Calculation of Required Underwriting Profit Provision

(a) **Target rate of return**	0.0%	2.5%	5.0%	10.0%
(b) **Premium to surplus ratio**	30.3%	30.3%	30.3%	30.3%
(c) **Required return as a percent of premium [(a) / (b)]**	0.0%	8.3%	16.5%	33.0%
(d) **Policyholder-supplied funds as a percent of premium**	180.9%	163.2%	145.5%	110.1%
(e) **After-tax return on investments**	1.03%	1.03%	1.03%	1.03%
(f) **Investment return on PHSF as a percent of premium [(d) x (e)]**	1.9%	1.7%	1.5%	1.1%
(g) **Surplus to premium ratio**	330.4%	330.4%	330.4%	330.4%
(h) **Investment return on surplus as a percent of premium [(e) x (g)**	3.4%	3.4%	3.4%	3.4%
(i) **Projected surplus-lines tax revenue as a percent of premium**	0.0%	0.0%	0.0%	0.0%
(j) **Required post-tax underwriting profit provision [(c) - (f) - (h)]**	-5.3%	3.2%	11.6%	28.5%
(k) **Underwriting tax rate**	0.0%	0.0%	0.0%	0.0%
(l) **Required pre-tax underwriting profit provision [(j) / (1.0 - (k))]**	-5.3%	3.2%	11.6%	28.5%

Notes
(b), (e) from audited financial statements
(i) based on discussions with MWUA management and a projected revenue of: $ -

DRAFT

Participation Summary   Exhibit #4
Participation Year 2017, based on 2016 DWP

	Projected Company Assessment and Recoupment Assuming Statutory Limits [1]		
Net Statewide Premium *(NSW Prem)*	**$117,551,520**	**Est Recouped**	**Forfeited**
1,175,515,199	117,551,520	78,853,621	38,697,898
		67.1%	**32.9%**

[1] - In any one year company assessments limited to greater of 10% of deficit or 10% of "Statewide Property Premium" (Assumed "Statewide Property Premium" limit applies).

EXHIBIT #5

Mississippi Windstorm Underwriting Association

Probability of Assessment Analysis 2015

Presented by:
Christopher J. Burkhalter, FCAS, MAAA
Vice President & Principal

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Bickerstaff Whatley Ryan & Burkhalter
CONSULTING ACTUARIES

EXHIBIT #5

Bickerstaff Whatley Ryan & Burkhalter CONSULTING ACTUARIES

PURPOSE & OUTPUT

- *Ratemaking Differences*
  - *Insurance Companies – financial targets (return on equity, combined ratios)*
  - *MWUA – reinsurance purchases; feast or famine*
- *Probability of assessment*

MWUA

EXHIBIT #5

Bickerstaff Whatley Ryan & Burkhalter
CONSULTING ACTUARIES

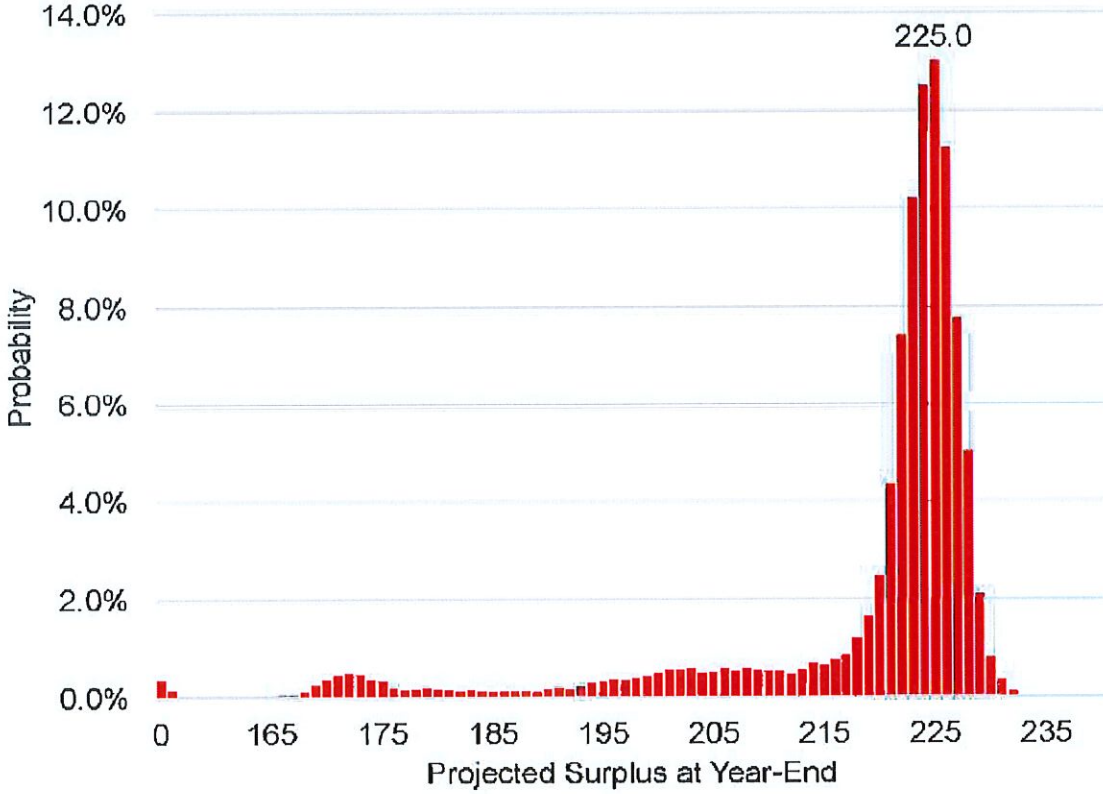
THE MODEL

- Starting Surplus - $205.7M
- Reflect variability of:
  - Premium
  - Other Income (investments & fees)
  - Expenses
  - Non-Catastrophe Loss
  - Net Catastrophe Loss

MWUA

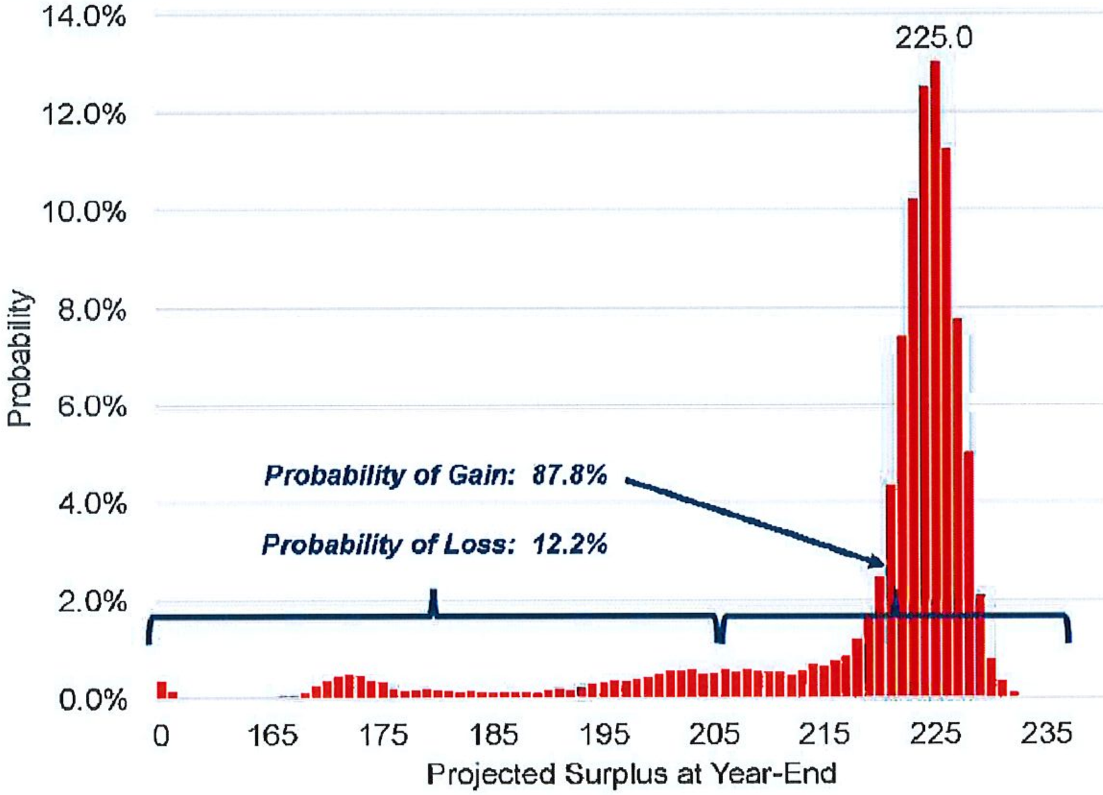
Bickerstaff Whatley Ryan & Burkhalter
CONSULTING ACTUARIES

BASE SCENARIO OUTPUT



Bickerstaff Whatley Ryan & Burkhalter
CONSULTING ACTUARIES

BASE SCENARIO OUTPUT



Bickerstaff Whatley Ryan & Burkhalter
CONSULTING ACTUARIES

BASE SCENARIO OUTPUT

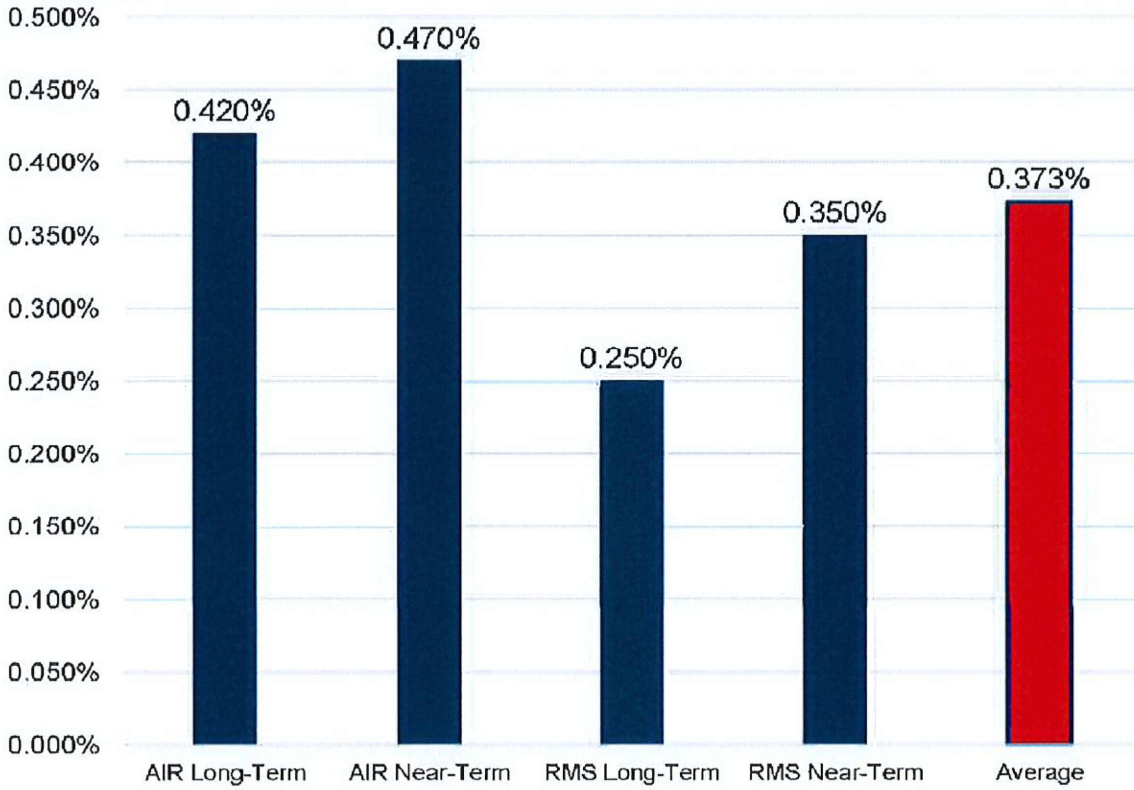
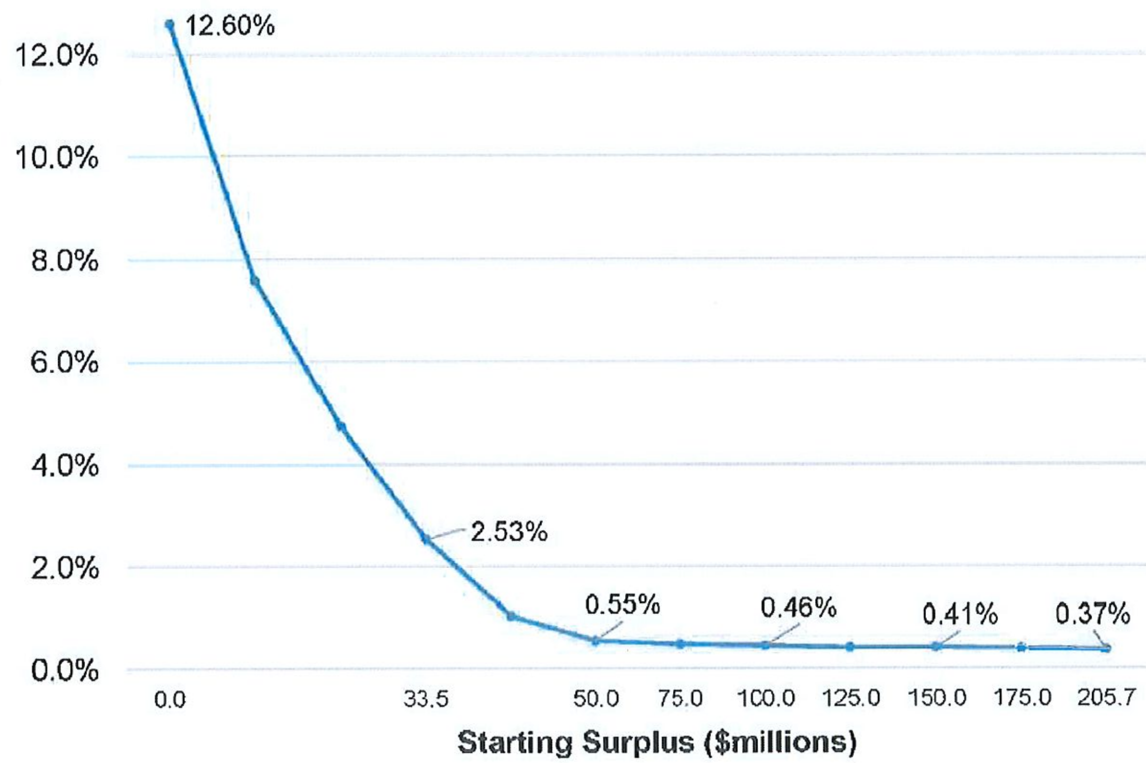


EXHIBIT #5

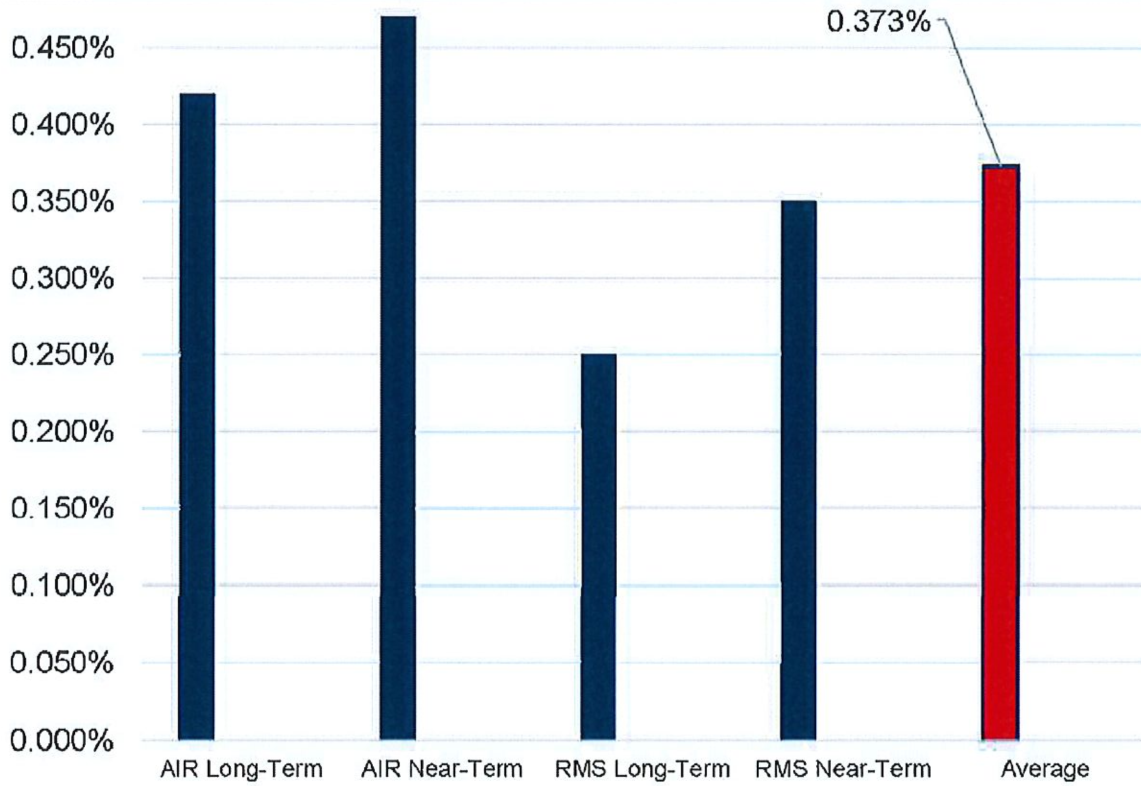
MWUA SURPLUS ($M)

Probability of Assessment vs Starting Surplus



Bickerstaff Whatley Ryan & Burkhalter
CONSULTING ACTUARIES

Probability of Assessment Current Pricing



Bickerstaff Whatley Ryan & Burkhalter CONSULTING ACTUARIES

Probability of Assessment 10% Rate Increase

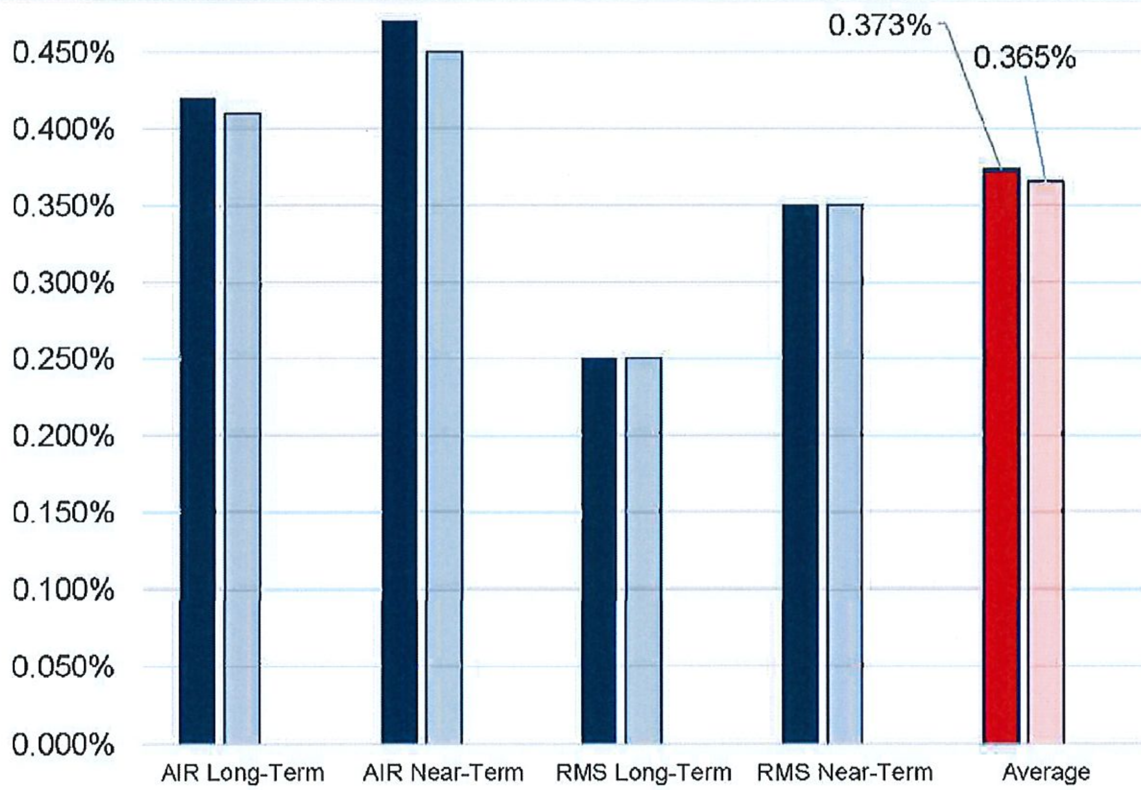


EXHIBIT #5

Bickerstaff Whatley Ryan & Burkhalter
CONSULTING ACTUARIES

Probability of Assessment
10% Rate Increase / Increased Re

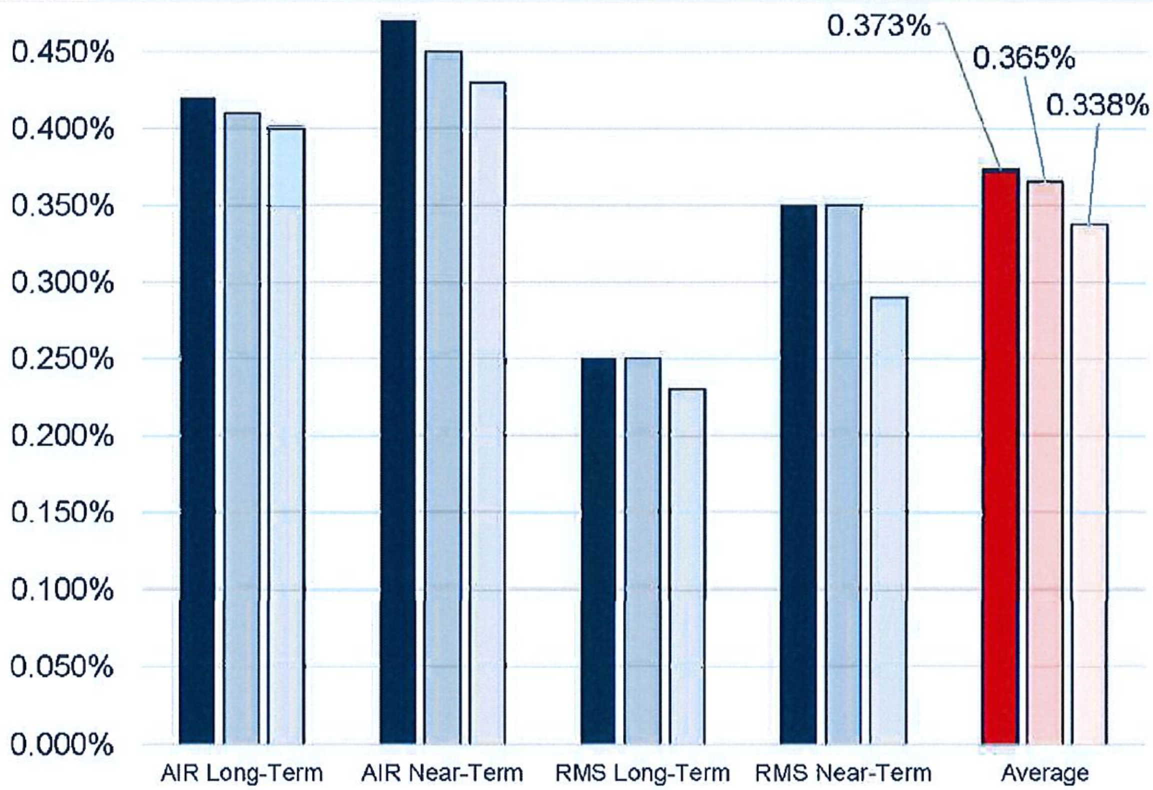
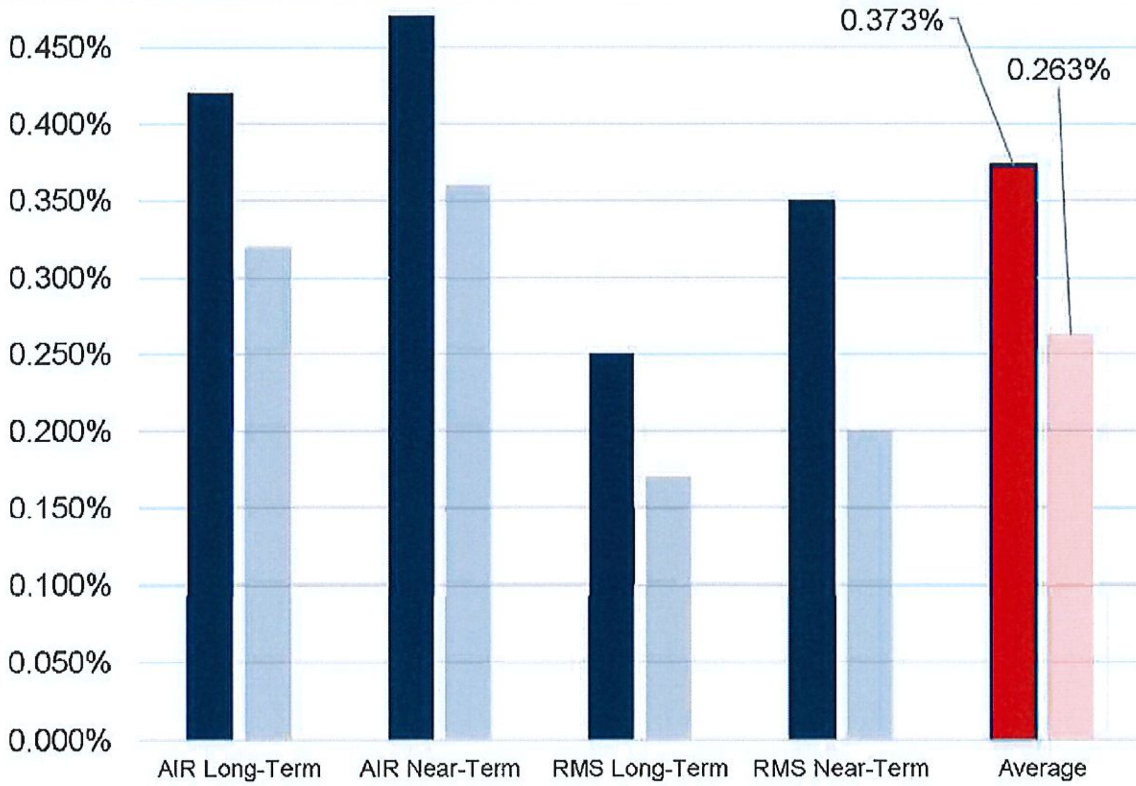


EXHIBIT #5

Probability of Assessment
$125M SIR / Buy Up Top ($1.3B)



Bickerstaff Whatley Ryan & Burkhalter
CONSULTING ACTUARIES

Probability of Assessment
$125M SIR / Buy Up Top ($1.3B)

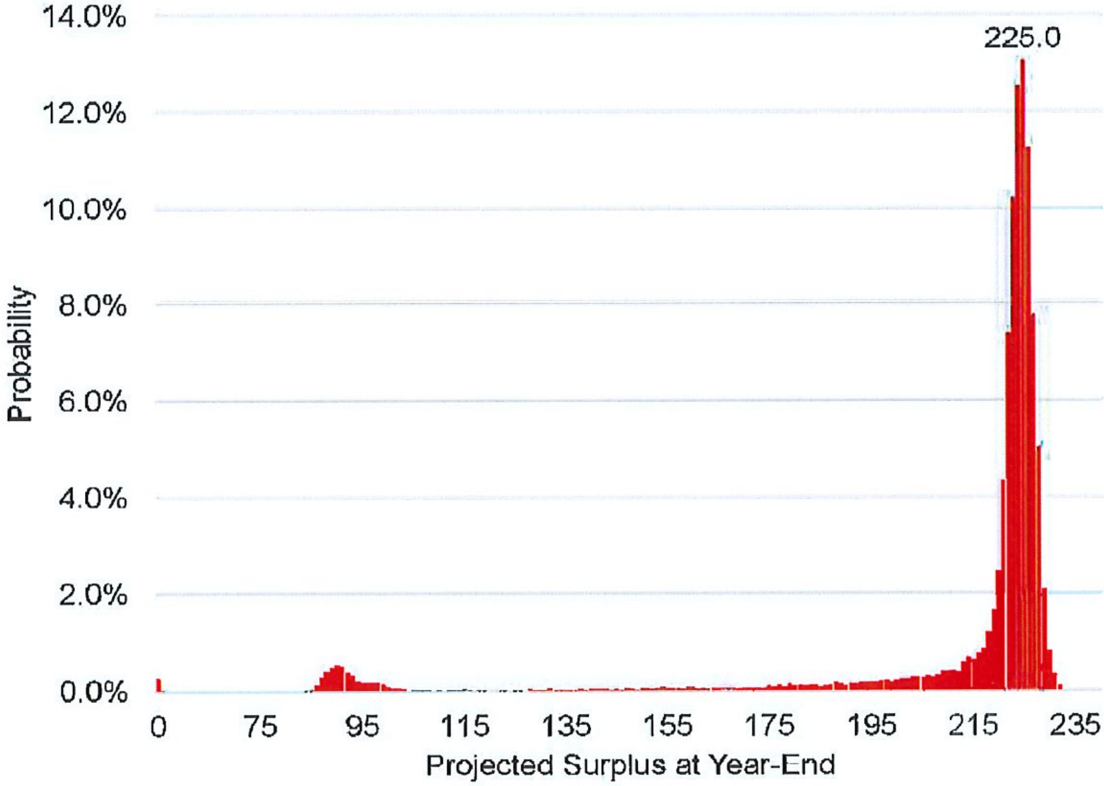


EXHIBIT #5

Bickerstaff Whatley Ryan & Burkhalter
CONSULTING ACTUARIES

FUTURE USE / ENHANCEMENTS

- *Reinsurance Purchase*
- *Rate Deliberations*
- *Multi-Year Version*
- *Suggestions/Requests*

MWUA

MISSISSIPPI WINDSTORM UNDERWRITING ASSOCIATION REINSURANCE PURCHASE STANDARDS

The Mississippi Windstorm Underwriting Association governed by Mississippi Code § 83-34-1 et seq. provides that one of the powers and duties of the MWUA is to "purchase reinsurance for all or part of the risk of the Association." (§ 83-35-5)

Due to the vital role of the MWUA as an "insurer of last resort" and the fact that the mission of the MWUA necessarily contemplates insuring the six coastal counties of Mississippi from catastrophic windstorm events such as severe or repetitive hurricanes, it is presently and will always be necessary that the MWUA purchase and maintain an appropriate amount of reinsurance to transfer the loss risk of the MWUA to insure that claims can be paid, but to also minimize the possibility of surcharges being placed on each citizen throughout Mississippi for a potential MWUA financial shortfall.

The MWUA recognizes there will never be a mathematically precise "formula" for the amount or type of reinsurance to be purchased, but sets out a policy or goal to guide the MWUA in its purchasing decisions for reinsurance and risk transfers.

Due to the uncertainty of the risk insured by the MWUA, the Board has determined that the general "goal" is to reinsure the risk portfolio of the MWUA to a single occurrence with a "250 year" return period and a 0.40% probability of exceedence. The Board recognizes that a "250 year" standard is not now, nor can it ever be certain or precise, and that the Board must rely on one or more catastrophe models that are prepared for estimating losses in the event of catastrophes. The MWUA further recognizes that these models are educated guesses, but guesses nonetheless, and must be conditioned on other factors that the Board should take into consideration when determining the amount and type of reinsurance to purchase.

The following are some, but certainly not the entire list of factors or elements in making a reinsurance decision.

1. The models or blended models adopted by the Board from currently available industry standard modelers as to the amount of estimated loss that would result from a tropical storm or hurricane.

2. Market conditions in the worldwide reinsurance markets utilized by the MWUA which will change due to worldwide financial conditions, catastrophes, both as to their severity, frequency, and the capacity of capital available in the reinsurance or risk transfer market.

3. The willingness of reinsurers to insure the particular risk presented by the MWUA.

4. The longstanding business relationships created by the MWUA and its designated brokers with reinsurance markets that have educated underwriters on the mission and management practices of the MWUA that have built a consistent market for the most

competitive prices offered by underwriters.

5. The MWUA recognizes that the reinsurance market has pricing and capacity cycles that differ and change, but these markets will determine the amount and type of reinsurance the MWUA can or may ultimately purchase on an annual or multi-year basis.

6. The MWUA will take into consideration that when severe losses occur, post event purchasing and consistency will be affected by its past purchase practices and underwriter relationships.

7. The total insured value of policies written by the MWUA and the number of policies written by the MWUA, the types and locations of risks and other market factors in determining premium charges to be made to the MWUA insureds. Also, other financial realities of funding sources that are available to the MWUA through premium payments, retained earnings, return on equity investments and other sources of funds from private and public funds that are available to the MWUA at any certain time will affect its decisions.

8. The advice and recommendations of MWUA's brokers and reinsurance experts who counsel the MWUA on market conditions, trends and other factors regarding the level and type of purchases of risk transfer vehicles.

The MWUA recognizes there is never "one answer" to the amount or type of reinsurance that the MWUA will purchase on an annual basis. The MWUA will make a diligent review of all of the factors and will consider on an annual basis the most beneficial amount and type of reinsurance purchase to fulfill its mission. The MWUA will endeavor to protect not only its policy holders, but other entities that are involved with the MWUA's mission, including assessable insurance carriers doing business in Mississippi, governmental entities that may be involved in the funding efforts, and the citizens of Mississippi who may be required to contribute funds through the statutory recoupment process to pay claims and maintain the viability of the MWUA.

Adopted by the Board - 12/01/2016

EXHIBIT #7

Mississippi Windstorm Underwriting Association

2004 PORTFOLIO ANALYSIS

MISSISSIPPI WINDSTORM UNDERWRITING ASSOCIATION

2003 ANALYSIS

Total Insurable Values	1,070,173,010
No. of Risk	11,967
Limits Purchased	200,000,000
Premium	7,507,698

		RMS 4.2 Analysis February 2003		
Layer	Expiring Premium	Pure Modeled Premium	Standard Deviat on	Pure Premium + 1/3 Standard Deviation
20,000,000	2,750,000	758,792	3,661,371	1,979,127
25,000,000 xs 20,000,000	1,400,000	509,284	3,397,899	1,641,804
30,000,000 xs 45,000,000	1,400,000	359,961	3,148,956	1,409,508
25,000,000 xs 75,000,000	560,000	193,223	2,123,613	901,023
25,000,000 xs 100,000,000	425,000	128,228	1,727,399	703,970
25,000,000 xs 125,000,000	325,000	85,515	1,413,893	556,766
25,000,000 xs 150,000,000	200,000	59,240	1,183,244	453,615
25,000,000 xs 175,000,000	125,000	44,965	1,039,773	391,521
TOTAL	7,185,000	2,139,208	17,696,148	8,037,334

2004 ANALYSIS

Total Insurable Values	1,350,700,753
No. of Risk	14,016
Limits Purchased	200,000,000
Premium	9,589,975

		RMS 4.3 Analysis February 2004			CATRADER February 2004		
Layer	Premium	Pure Modeled Premium	Standard Deviation	Pure Premium + 1/3 Standard Deviation	Pure Modeled Premium	Standard Deviation	Pure Premium + 1/3 Standard Deviation
20,000,000	2,750,000	876,934	3,909,101	2,179,837	1,563,055	4,338,007	3,008,913
25,000,000 xs 20,000,000	1,400,000	574,826	3,618,839	1,780,985	430,102	3,052,417	1,447,473
30,000,000 xs 45,000,000	1,400,000	417,044	3,390,940	1,547,244	243,588	2,534,189	1,088,233
25,000,000 xs 75,000,000	560,000	225,633	2,301,854	992,841	125,117	1,719,738	698,306
25,000,000 xs 100,000,000	425,000	162,100	1,962,464	816,189	102,476	1,571,300	626,190
25,000,000 xs 125,000,000	325,000	123,524	1,721,674	697,358	77,014	1,356,703	529,203
25,000,000 xs 150,000,000	200,000	99,863	1,555,202	618,212	65,199	1,255,743	483,738
25,000,000 xs 175,000,000	125,000	83,632	1,425,095	558,616	45,919	1,039,961	392,538
TOTAL	4,435,000	2,563,556	19,885,169	9,191,283	2,812,397	16,705,058	8,274,594

Critical Probability

Year	RMS 2003	RMS 2004	CATRADER 2004
	Ground Up	Ground Up	Ground Up
25	16,882,228	24,475,296	
50	42,120,430	55,160,277	26,539,590
100	80,436,543	99,354,620	52,236,034
250	137,130,175	184,622,330	118,511,651
500	186,506,330	283,665,802	184,031,222
1,000	422,079,768	387,886,029	

CRC Insurance Services, Inc.

Renewal Option Summary

Loss Scenario	Return Period	Expiring	Option 1--250 Yr. PML	Option 2 -- Decision Tree	Option 3 -- Lower Ceiling/Less Co-pars	Option 3B-- ALTERNATE	Option 4--- $100M po Retention	Option 5 -- $75M Agg Retention	Option 6-- Apples to Apples
66M	20 YR	(32,235,850)	(22,965,000)	(23,265,000)	(21,905,000)	(22,215,000)	(60,765,000)	(63,065,000)	(25,015,000)
406M	100 YR	(59,035,850)	(49,765,000)	(50,065,000)	(42,005,000)	(42,315,000)	(94,765,000)	(97,065,000)	(51,815,000)
725M	250 YR	(59,035,850)	(49,765,000)	(50,065,000)	(42,005,000)	(42,315,000)	(94,765,000)	(97,065,000)	(51,815,000)
Hiscox Katrina--1BN	500 YR	(87,785,850)	(201,515,000)	(185,565,000)	(154,255,000)	(138,315,000)	(119,765,000)	(135,065,000)	(89,815,000)
2 $66M Losses	2 x 20 YR	(47,235,850)	(48,165,000)	(38,265,000)	(57,005,000)	(57,315,000)	(110,765,000)	(82,865,000)	(40,015,000)
1 $406M/ 1 $150M	1 x 100 YR, 1 x 30 YR	(74,035,850)	(91,765,000)	(65,065,000)	(57,005,000)	(57,315,000)	(144,765,000)	(112,065,000)	(66,815,000)
	Average Across various Scenarios	(59,894,183)	(77,323,333)	(68,715,000)	(62,363,333)	(59,965,000)	(104,265,000)	(97,865,000)	(54,215,000)
Gross Premium		**$46,770,850**	**$37,500,000**	**$37,800,000**	**$38,990,000**	**$39,300,000**	**$34,500,000**	**$36,800,000**	**$39,550,000**
Difference from Expiring $		$ -	($9,270,850)	($8,970,850)	($7,780,850)	($7,470,850)	($12,270,850)	($9,970,850)	($7,220,850)
Difference from Expiring %		**0%**	**-19.82%**	**-19.18%**	**-16.64%**	**-15.97%**	**-26.24%**	**-21.32%**	**-15.44%**
Program Attachment		$15,000,000	$15,000,000	$15,000,000	$15,000,000	$15,000,000	$100,000,000	$75,000,000	$15,000,000
Program Exhaustion		$962,000,000	$787,000,000	$812,000,000	$852,750,000	$877,750,000	$975,000,000	$962,000,000	$962,000,000
Total Retentions		**$52,000,000**	**$52,000,000**	**$52,000,000**	**$42,750,000**	**$42,750,000**	**$100,000,000**	**$100,000,000**	**$52,000,000**
Total Capacity Purchased		$919,250,000	$796,250,000	$812,500,000	$845,000,000	$861,250,000	$875,000,000	$862,000,000	$910,000,000
Program ROL		5.09%	4.71%	4.65%	4.61%	4.56%	3.94%	4.27%	4.35%
			-7.44%	-8.56%	-9.31%	-10.31%	-22.51%	-16.09%	-14.58%
Alternative Price Savings									
Top and Drop Cost		$1,554,000	$1,665,000	$1,665,000	$1,250,000	$1,250,000	$1,750,000	$1,710,000	$1,406,000
Estimated Cost w/o T&D		Purchased	$35,835,000	$36,135,000	$37,740,000	$38,050,000	$32,750,000	$35,090,000	$38,144,000

AmWINS Group, Inc.

SPECIALIZING IN GIVING YOU MORE.

Renewal Option Summary

Loss Scenario	Return Period	Expiring	Option 2 -- Decision Tree	Option 3 -- Lower Ceiling/Less Co-pars	Option 3B-- ALTERNATE	Option 4--- $100M po Retention	Option 6-- Apples to Apples	Revised 150YR.100M Retention	Revised 250YR.100M Retention
66M	20 YR	(32,235,850)	(23,265,000)	(21,905,000)	(22,215,000)	(60,765,000)	(25,015,000)	(52,997,605)	(56,490,836)
406M	100 YR	(59,035,850)	(50,065,000)	(42,005,000)	(42,315,000)	(94,765,000)	(51,815,000)	(86,997,605)	(90,490,836)
725M	250 YR	(59,035,850)	(50,065,000)	(42,005,000)	(42,315,000)	(94,765,000)	(51,815,000)	(86,997,605)	(90,490,836)
Hiscox Katrina--1BN	500 YR	(87,785,850)	(185,565,000)	(154,255,000)	(138,315,000)	(119,765,000)	(89,815,000)	(405,747,605)	(279,240,836)
2 $66M Losses	2 x 20 YR	(47,235,850)	(38,265,000)	(57,005,000)	(57,315,000)	(110,765,000)	(40,015,000)	(102,997,605)	(106,490,836)
1 $406M/ 1 $150M	1 x 100 YR, 1 x 30 YR	(74,035,850)	(65,065,000)	(57,005,000)	(57,315,000)	(144,765,000)	(66,815,000)	(136,997,605)	(140,490,836)
	Average Across various Scenarios	(59,894,183)	(68,715,000)	(62,363,333)	(59,965,000)	(104,265,000)	(54,215,000)	(145,455,938)	(127,282,503)
Gross Premium		**$46,770,850**	**$37,800,000**	**$38,990,000**	**$39,300,000**	**$34,500,000**	**$39,550,000**	**$26,732,605**	**$30,225,836**
Difference from Expiring $		$ -	($8,970,850)	($7,780,850)	($7,470,850)	($12,270,850)	($7,220,850)	($20,038,245)	($16,545,014)
Difference from Expiring %		**0%**	**-19.18%**	**-16.64%**	**-15.97%**	**-26.24%**	**-15.44%**	**-42.84%**	**-35.37%**
Program Attachment		$15,000,000	$15,000,000	$15,000,000	$15,000,000	$100,000,000	$15,000,000	$100,000,000	$100,000,000
Program Exhaustion		$962,000,000	$812,000,000	$852,750,000	$877,750,000	$975,000,000	$962,000,000	$550,000,000	$750,000,000
Total Retentions		**$52,000,000**	**$52,000,000**	**$42,750,000**	**$42,750,000**	**$100,000,000**	**$52,000,000**	**$100,000,000**	**$100,000,000**
Total Capacity Purchased		$919,250,000	$812,500,000	$845,000,000	$861,250,000	$875,000,000	$910,000,000	$450,000,000	$650,000,000
Program ROL		5.09%	4.65%	4.61%	4.56%	3.94%	4.35%	5.94%	4.65%
Difference from Expiring %			-8.56%	-9.31%	-10.31%	-22.51%	-14.58%	16.76%	-8.60%

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*We did not include original Option 1 or 7 in this summary as those were not seriously considered in the meeting.

EXHIBIT 9

Row Labels	Count of GEOCODE	Percent of Total
Coordinate	6976	20.8%
Parcel	20443	61.0%
Postal Code	1503	4.5%
Street	3664	10.9%
Street Name	901	2.7%
Grand Total	**33487**	

Row Labels	Sum of TOTAL TIV	Percent of Total
Coordinate	1350245552	21.5%
Parcel	3774476385	60.2%
Postal Code	276255107.1	4.4%
Street	653079407.6	10.4%
Street Name	212260377.6	3.4%
Grand Total	**6266316829**	

Row Labels	Sum of LIMITS	Percent of Total
Coordinate	1039674505	20.7%
Parcel	3056876137	61.0%
Postal Code	229210300	4.6%
Street	530260741	10.6%
Street Name	155149906	3.1%
Grand Total	**5011171589**	