# ADMINISTRATION AND FINANCE

8A

# STAFF REPORT

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| To: | SBWMA Board of Directors |
| From: | John Mangini, Senior Finance Manager |
| | Joe La Mariana, Executive Director |
| Date: | March 25, 2021 Board of Directors Meeting |
| Subject: | Report on Self Insurance Study |

## Recommendation

This is an informational item only and no action is required.

## Summary

The purpose of this report is to provide the Board with an update on Self-Insurance options for the Shoreway Environmental Center property and facilities and approach for the solicitation of our next property insurance coverage period of July 1, 2021 to June 30, 2022, and to solicit initial Board input on the topic. At Finance Committee direction, Staff has commissioned a report on self-insurance from the Risk Strategies (SBWMA's insurance broker), which is provided as **Attachment A** of this staff report. Staff has met with Risk Strategies' senior management to discuss the report and to clarify potential self-insurance options. A detailed review of self-insurance options will be presented to the Finance Committee at its June 8th meeting where Staff will seek the Committees direction on the level of property insurance, and their associated coverage costs, for the next coverage period prior to Board consideration at the June 24th BOD Meeting.

## Background

In response to drastically increased property insurance premiums over the past few years, the SBWMA Finance Committee and Board have requested Staff to evaluate self-insurance options. The Agency's insurance premiums have increased $1.1M since 2016 as illustrated in **Table 1** below. The Agency has been able to secure property/fire insurance policy coverage since the MRF and Transfer Station fires in September 2016. In addition to these incidents, the insurance industry is experiencing increased risk in our class of business which has also resulted in higher premiums to secure coverage. Many carriers are now declining to quote on our class of business. Over 30 insurance companies declined to provide a quote during the prior year's solicitation for coverage.

Table 1

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|
| Premium | $ 179,596 | $ 766,682 | $ 838,484 | $ 954,916 | $ 1,286,497 |
| Increase | | $ 587,086 | $ 71,802 | $ 116,432 | $ 331,581 |
| *Deductable* | *$ 5,000* | *$ 500,000* | *$ 500,000* | *$ 1,000,000* | *$ 1,500,000* |
| *Period* | *7/1/16 - 6/30/17* | *7/1/17 - 6/30/18* | *7/1/18 - 6/30/19* | *7/1/19 - 6/30/20* | *7/1/20 - 6/30/21* |

## Analysis

Self-insure is a risk management technique in which a company sets aside a pool of money to be used to remedy an unexpected loss. Self-insurance can provide a premium cost savings or a level of insurance coverage where traditional coverage is not attainable in the marketplace. Risk Strategies' Report (Report) (Attachment A) describes options or methods the SBWMA may adopt to set aside funds to cover for loss or damage to assets. The report also calculates the SBWMA's Probable Maximum Loss (PML) and Maximum Possible Loss (MPL); these are important financial modeling tools that are used in the insurance industry and can help determine the level of risk to carry when considering coverage and deductible. Under the SBWMA's current insurance policy the Agency's risk is the policy deductible plus the difference between the $60M policy limit and estimated MPL of $70M. Setting aside funds to pay for this risk would self-insure for a potential loss.

The SBWMA has already adopted a level of self-insurance by allocating reserves to an Emergency Reserve and taken action to increase the reserve by allocating premium savings from increased property insurance deductibles to the reserve in the past two years. The Agency's Emergency Reserve is projected to be $4.9M at the close of the fiscal year ending December 31, 2021 and has also built an additional $320K in reserves from the increase in deductible for a total available current reserve amount of $5.2M. In the event of a major incident, this amount could be used to supplement possible insurance claims reimbursement to address necessary facility repairs or equipment replacement without directly impacting the agency's annual operating budget.

The Report contains a detailed analysis of insurance options that Staff will review with the Finance Committee to secure a recommended level of coverage, premium, deductible, reserves and ultimately the level risk for Board consideration at the June meeting.

The Report also recommends continued risk improvement measures to reduce any exposure retained by the SBMWA and to retain insurers on the program or perhaps attract new markets to the program. They also recommend engaging an independent third party to provide inspection services, a loss prevention plan an audit of the plan. At the request of the SBWMA, Risk Strategies has provided a short list of companies that can provide this service and the Staff will immediately pursue this service.

Creating a "Captive" is also a viable option identified in the Report. In insurance terms, a "Captive" is defined as an insurance company that is wholly owned and controlled by its insured. In other words, the SBWMA could create its own insurance company to self-insure itself. Risk Strategies advised Staff that they manage about 1000 Captives for clients on a fee basis. Staff asked Risk Strategies to perform an initial feasibility study on a possible Captive scenario for the SBWMA. If determined to be a viable option, Risk Strategies advised Staff that a Captive can be established at any point during a coverage term. If established during a coverage year, a policy can be cancelled and replaced with Captive coverage.

## Additional Information

Verlan Fire Insurance Company was the SBWMA's property insurance carrier in 2016 and paid $8.7M in claims for the September 2016 fire, including business interruption reimbursement. Verlan has recently achieved a reimbursement recovery settlement with South Bay Recycling's (SBR's) insurance company in the amount of $3.75M, and also achieved a secondary settlement with Bulk Handling Systems' (BHS) insurance company for $148K. BHS is the manufacturer of the MRF sorting equipment system at the Shoreway Facility. Risk Strategies has advised Staff that this settlement <u>may</u>, indeed, help to reduce our property insurance premium, as the insurance market may consider these additional insured parties when underwriting the SBWMA's policy quote.

<u>Fiscal Impact</u>
There is no initial fiscal impact associated with this analysis.

*<u>Attachments</u>*:

Attachment A – Self Insurance Report by Risk Strategies
Attachment B – Self Insurance Presentation to be given at the 03/25/2021 SBWMA Board of Directors Meeting

# Self-Insurance Report by Risk Strategies


South Bayside Waste Management Authority has requested a commentary on self-insurance as a risk management tool for the Agency.

**What is Self-Insurance?**

Self-insure is a risk management technique in which **a company sets aside a pool of money to be used to remedy an unexpected loss**. Theoretically, an entity can self-insure against any type of damage (like from flood or fire) In practice, however, most choose to purchase insurance against potentially severe but infrequent losses.

**Understanding Self-Insurance**

Self-insuring against certain losses may be more economical than buying insurance from a third party. **The more predictable and smaller the loss is, the more likely it is that an individual or firm will choose to self-insure.**

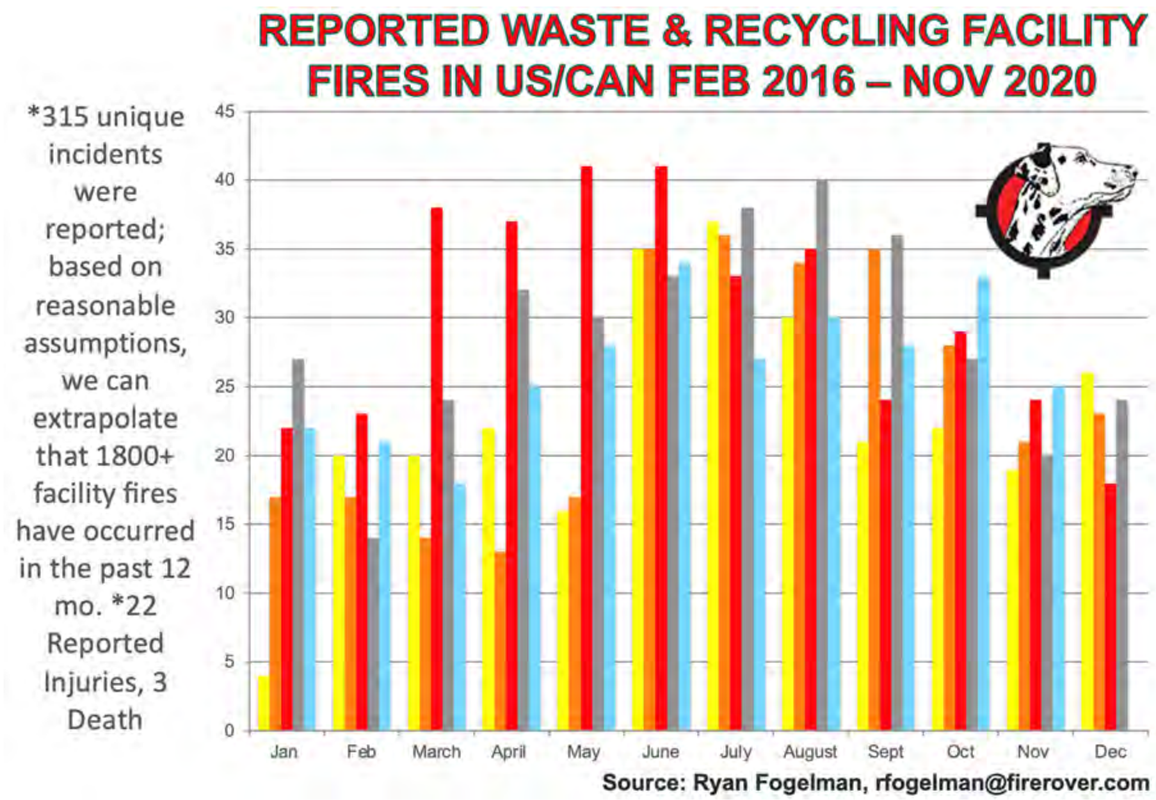
A self-insured entity **should set aside the money** that would have been paid out as insurance premiums. It is critical **to accumulate and put aside enough funds to cover loss or damage to your assets** if an accident or natural catastrophe occurs.

While self-insurance can reduce insurance premiums, whatever savings are generated should flow to a self-insurance account so that money is readily available to pay for losses

**Background**

Recycling professionals are well aware that due to the rising number of fires in recent years, operators like SBWMA are encountering difficulties with placing traditional insurance.

Both the frequency and severity of claims within the recycling industry have been so adverse during the period January 2016 to November 2020 that the availability of coverage at any price has been a real challenge to the industry and the insurance professionals seeking to provide coverage to their clients.




The reality is that there are unavoidable fire hazards in the materials recovery industry. This fact (in addition to others in the wider commercial property insurance market) translates to fewer insurance options, fewer providers of insurance, and increased deductibles and premiums for facility operators.

Insurance companies are restricting writings to “best in class” facilities and completely excluding those facilities with high-risk potentials or with a history of losses. This has resulted in a reduction in coverage and higher insurance costs for companies seeking insurance. Supply is just not adequate enough to meet demand.

Another factor driving the reduction in the number of carriers writing property coverage for the industry is the dwindling number of reinsurers participating in the waste and recycling insurance market. A reinsurer is an insurance company that insures the risks of other insurance companies, and reinsurance companies are moving away from the market for the same reasons that primary insurers are.

Facilities with multiple claims over the last few years are having the most difficulty finding coverage. With claims payouts significantly higher than what is collected in premiums, insurers are unwilling to renew their policies.

While no operator can completely eliminate the risk of fire or other catastrophic events, there are actions companies can take to begin to take control of their insurance programs. A high deductible or large self-insured retention are a couple of options for operators to consider in order to show carriers the confidence they have in their own companies and can afford to take on more risk.

South Bayside Waste Management Authority has taken steps to gain control of their Property insurance program by accepting higher deductibles on their property program.

According to a report prepared by Amy Hahn in early 2020, the **PML or Probable Maximum Loss** from a fire occurring in the MRF Building with all fire protection systems in operation and functioning as designed is estimated to be $1.5 million for Property Damage only. The PML loss estimate does not include the resulting down time or business interruption loss for a PML event. If business interruption values can be allocated by building, Amy can redo her analysis.

**PML Scenario**

A fire occurs within the processing area of the MRF Building. Automatic sprinkler protection activates and controls the fire. Interlocks to shut down conveyors and equipment operate as designed. The fire is contained within the area of origin however smoke and water damage affect the open area of the building.

**Damage Estimates:**

- **Building Damage** – 5% of the building will be damaged and need cleaning and/or repairs.
- **M&E Damage** – approximately 3% of equipment will be damaged and need cleaning and/or repairs.
- **Business Interruption** – It is estimated that the operations in 25% of this building will be down for 30 days. Because the Business Income is reported for the entire site versus per building, the dollar value of this was not included.

| PML Damage Estimates | Insured Value ($) | Estimated % Damage | Estimated Loss ($) |
|---|---|---|---|
| **MRF Building** | $14,171,000 | 5% | $708,550 |
| **MRF Equipment** | $25,211,700 | 3% | $756,351 |
| **MRF Time Element** | | 25% for 30 days | |
| **Total Property Damage** | | | **$1,464,901** |

**The Property Policy deductible is $1.5 million. It is equivalent to the estimated PD PML. If SBWMA is funding the deductible, then they have taken steps to “self-insure” this exposure.**

Amy’s report also contains an analysis of **the MPL or Maximum Possible Loss** from a fire occurring with fire protection out of service and possible delay in Fire Department response. The MPL is estimated to be $70 million.

**MPL Scenario**

A fire occurs within the processing area of the MRF Building. The fire protection system, detection and interlocks are all inoperable. The fire is able to grow and spread throughout this building due to the heavy combustible loading. The conveyor system carries ignited materials across to the Transfer Station Building which then starts a secondary fire within this building, also with fire protection out of service. The fires in both buildings are able to grow, uncontrolled, and spread to the extents of the buildings. The corrugated metal siding and roofing are compromised due to the high heat release rate of the fire and eventual collapse occurs. Both buildings experience significant fire damage and are nearly total losses.

Due to the concrete construction of the Administration Building and eventual FD response to intervene, it is unlikely that the fire will be able to spread into the Administration Building though some thermal damage may be experienced in this building as well.

Damage Estimates:

- **Building Damage** – The Transfer Station will experience approximately 90% damage to the structure due to the metal construction being compromised and needing replacement. The MRF Building will experience approximately 85% damage also due to the metal construction materials being compromised and needing replacement. The Administration Building is expected to experience minor thermal damage, approximately 7%.

- **M&E Damage** – Equipment in both the Transfer Station Building and MRF Building will be a total loss at 100%.

- **Business Interruption** – It is estimated that this site would be 100% shut down for approximately 12 months for reconstruction activities.

| MPL Damage Estimates | Insured Value ($) | Estimated % Damage | Estimated Loss ($) |
|---|---|---|---|
| MRF Building | $14,171,000 | 85% | $12,045,350 |
| MRF Equipment | $25,211,700 | 100% | $25,211,700 |
| Transfer Station | $17,801,000 | 90% | $16,020,900 |
| Transfer Station Equipment | $5,250,000 | 100% | $5,250,000 |
| Administration Building | $775,350 | 10% | $77,535 |
| Total Property Damage | | | **$58,605,485** |
| Time Element | $10,949,806 | 100% for 12 months | $10,949,806 |
| Total MPL Damage | | | **$69,555,291** |

The Policy limit is $60 million while the MPL event is estimated to be $70 million. This means that SBWMA is not insured for the worst possible loss and is buying less insurance than it should for an MPL event. **If SBWMA is setting aside money to pay for this loss potential, then they are “self-insuring” the $10 million exposure.**

Points to consider:

1. Underwriters are looking to underwrite to a 50% loss ratio. This means that with $9 million in losses over the past five years, the annual average loss/burn rate is approximately $1.8 million

which is roughly equivalent to the deductible. Underwriters still need another $1.8 million annual premium to underwrite to a 50% loss ratio.

2. Taking even more risk at the bottom of the program through a higher deductible means there will be some additional premium savings which can be used to self-insure the higher retention. A cost benefit analysis will need to be performed based on SBWMA's actual loss experience and premium credit allowed by the insurance companies to see what may make economic sense and what funding beyond the premium savings may be required to assume a new level of risk.
3. An annual aggregate deductible stop loss should be considered to protect the self-insurance fund in the event of multiple losses in any one Policy year.
4. Some of the premium savings could be used to buy $10 million more of Policy limit to cover the MPL rather than trying to fund for it since this is a large exposure to fund for.
5. Another option is to look at is self-insuring a quota share participation in some or all of the layers of the program so you are sharing risk with others rather than taking it on 100% with a large deductible or retention at the bottom. Again, this will require another cost benefit analysis.
6. Continued risk improvement is absolutely necessary to reduce any exposures retained by SBWMA and to keep insures on the program or perhaps even attract new markets to the program. If not doing so already, SBWMA should consider engaging a third party to provide inspection services, a loss prevention plan and audit of the plan. They need to be proactive and willing to mitigate their risks.

There is a self-insurance mechanism available to help businesses self-insure their insured or even uninsured risks. It is called a **Captive**.

Since 2018, companies and risk professionals who were trying to purchase or renew insurance policies had to navigate an increasingly hardening insurance market characterized by higher rates in almost all lines as well as limited capacity, and restrictions in coverage. The coronavirus pandemic and natural catastrophe losses have only made matters worse in 2020 and will continue to make matters worse in 2021.

Captive insurance companies came into existence because of difficult markets, like the one we're experiencing now. They offer companies greater flexibility to retain risk and insurance/reinsurance options to manage a hard insurance market.

**What is a Captive?**

**A Captive is defined as an insurance company that is wholly owned and controlled by its insureds. Its primary purpose is to insurer the risks of its owners. The insureds benefit from the Captive's underwriting profits.**

Captive insurance is utilized by insureds who choose to:

- **put their own capital at risk by creating their own insurance company**-an insured who establishes a captive insurance must be willing and able to invest its own resources. The insured in a captive insurance company not only has ownership in and control of the company but also benefits from its profitability.

- **work outside of the commercial insurance marketplace**-an insured who uses a captive insurance company participates in the risks and rewards associated with using their own risk capital, rather than paying to use the capital of commercial insurers. They make this choice believing that captive insurance offers something superior to commercial insurance. Commercial insurance is not always available for all risks where a captive may.
- **achieve their risk financing objectives**-an insured who establishes a captive has better control over their risk management programs. They are not subject to excessive pricing, limited capacity, and coverage that is unavailable in the traditional insurance market.

For SBWMA, a Captive will:

**1. Reduce reliance on Commercial Insurance.**

As the captive matures, its surplus grows, giving it greater capacity to retain risk. Increased surplus also creates new opportunities for accessing reinsurers and entering pooling arrangements, which further increase available capacity.

**2. Reduce of the Costs of Risk Management.**

The price of insurance coverage purchased in the conventional market typically reflects a significant markup to pay for the insurer's acquisition costs (including marketing and broker commissions), administration, and overhead as well as profit to the insurer. The fact that premiums are paid in advance represents a lost opportunity to earn investment income.

Establishment of a captive does not eliminate these costs, but it can reduce them. The extent of the reductions will depend on the captive's own loss experience, the claims handling costs and the degree to which the captive promotes cost consciousness and efficiency in the parent.

**3. Stabilize of Pricing**

Where the insured enjoys a stable and reasonable loss experience from year to year, a captive affords the ability to price insurance coverage accordingly. By contrast, the conventional insurance market will often set prices in relation to broad industry classifications, and thereby fail to reflect key differences in loss experience among individual insureds. The result is price volatility based on general market conditions and the actions of other insureds. In addition to the stabilization of pricing over time, there are also advantages to be realized in terms of the organization's financial planning and control functions.

**4. Provide Coverage Where Otherwise Unavailable**

From time to time, the conventional market is unwilling or unable to provide cover for certain risks, especially for liability and casualty loss. The establishment of a captive (or group captive) to write such lines or to provide additional capacity can be an answer to these market problems. Coverage, which have at times been unavailable or difficult to obtain on satisfactory terms, include product liability, professional liability, and oil pollution, hazardous waste and labor strike insurance. Whenever insurance cover is unavailable or overpriced, the feasibility of a captive is enhanced.

**5. Access to Reinsurance Markets**

Because reinsurers generally deal with insurance companies, a captive affords direct access to the international reinsurance markets. In bypassing conventional insurers, the insured is spared markup costs. The savings associated with eliminating these costs will frequently outweigh the incorporation and other startup costs of a captive.

**6. Improved Cash Flow Benefits**

The ability of a captive to generate investment income from unearned premiums received is often a critical advantage in forming a captive. This is especially so where premiums are paid in advance and losses are paid out over a lengthy period of time (which, in turn, depends on the kinds of risks insured). To the extent investment income can accumulate in a tax-free domicile, there will be additional funds available to pay losses and a corresponding reduction for further funding of the captive.

**7. Reduction of Government Regulations and Interference**

By contrast to the rigorous insurance regulation in most industrialized countries, a domicile can provide a less onerous, yet responsible, regulatory framework. This has been described as a system of shared regulation, whereby the regulated cooperate with a view to achieving the most appropriate level of policyholder protection while at the same time permitting the captive to grow and prosper.

**8. Ability to Customize Insurance Programs**

A captive has complete freedom to insure any risk it chooses and to customize the terms and conditions of its policies. This can lead to improved loss control efficiency and promote greater awareness of the factors that commonly give rise to losses.

**9. Formalize the Allocation of Deductibles or Self-Insurance Retention within a Corporation**

A medical facility may want to allocate costs to locations by loss ratios while a real estate partnership may need to bill each partner its respective cost (rather than an arbitrary allocation). With a captive, it is easier for the smaller entities to justify these expenses.

**10. Opportunities for Improved Claims Handling and Control**

A captive is also free to establish its own claims handling policies and procedures. This has obvious advantages such as the reduction of the time taken to process and pay claims.

**11. Creation of a Profit Center**

To the extent a captive might offer insurance coverage to unrelated customers (sometimes in response to tax planning objectives of the captive), it will have diversified into open market operations not unlike conventional insurers. Although there are special risks and capital requirements associated with engaging in such business, doing so will have the potential to generate additional profits.

**12. Tax Advantages**

While professional tax advice should be sought before making the decision to form a captive, there may be certain tax advantages associated with such a decision. These might include the tax-favored accumulation of underwriting and investment income (which may depend on, among other factors, the domicile of the captive, the residence or citizenship of the captive's owners or the source of its income).

Another advantage may be the deductibility of premiums paid for by the insured for tax purposes (as premium expense of the insured).

Also, if a captive qualifies as a true insurance company for tax purposes, then unlike other corporations it can deduct currently a “reasonable and fair” loss reserve for unpaid actual losses incurred. Finally, state premium taxes otherwise payable in a commercial insurance program may be reduced. Although tax advantages may be of significance in the decision to form a captive, they should never be the prime-motivating factor.

**13. Ability to Direct Investment Options**

Generally, when you purchase commercial insurance you do not control the investment of the premiums. A captive can afford the opportunity to direct these investment choices.

**Next Step**

**1. SBWMA and Risk Strategies Company Conduct a Captive Strategy Session**

- Introduce Captives and various relevant forms, such as Single Owner, Association, Group, Rent-a-Captive and Sponsored Captives, to the group.
- Explain the use of a Captive as a Risk Management tool.
- Identify the prerequisites for forming a Captive, such as Minimum Premium Levels, Predictability of Losses, Senior Management Support, Commitment to Underwriting, Loss Prevention and Control and Claims Management.
- Discuss the Advantages and Disadvantages of using a Captive.

**2. If the Session generates interest by SBWMA in forming a Captive then Risk Strategies will prepare a Feasibility Study**

- Identify lines of business to be ceded to the Captive.
- Collect and analyze data.
- Perform actuarial and financial analysis.

**If the Feasibility Study looks promising then, Risk Strategies Company will**

- Compare and contrast on shore/off shore domiciles such as Vermont and Bermuda.
- Design infrastructure and select resources to support Captive operations such as the Captive Manager, Accounting, Legal, and Actuarial firms, Investment Manager, Banks, Loss Prevention and Claims Administration organizations.
- Prepare a Business Plan including pro forma financial statements as well as Articles of Incorporation/Memoranda of Association, Bylaws and other legal documents.

**Step 3-Captive Implementation-Risk Strategies Company and SBWMA will**

- Meet with Regulators to present Captive proposal.

- Prepare and submit necessary documents and applications to Regulators and Officials for approval, certificates and licenses.
- Elect Directors and Officers for the Company
- Contract with Service Providers
- Manage the capitalization process.
- Arrange for fronting if required
- Arrange for reinsurance if required
- Finalize insurance and reinsurance agreements
- Commence writing business


Rethink waste
South Bayside Waste Management Authority
A Public Agency

# Self Insurance Study

Board of Directors Meeting

March 25, 2021

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## Property Insurance Premium

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|
| Premium | $ 179,596 | $ 766,682 | $ 838,484 | $ 954,916 | $ 1,286,497 |
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- Shoreway Fires September 2016 ($8.7M claims paid)
- MRF Class of Business--Increased Risk
- Many Carriers Declining to Offer Quote
- Over 30 Carriers Declined during 2020 Renewal

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# Self Insurance

## Risk management technique in which a company sets aside a pool of money to be used to remedy an unexpected loss

- Provides a premium cost savings or a level of coverage where traditional coverage is not attainable in the marketplace
- Self Insurance Measures Taken by the SBWMA
  - Emergency Reserve - $4.9M (projected)
  - Additional Reserved - $320K (Increased deductible savings)
  - = $5.2M currently available as a emergency reserve

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# PML & MPL Analysis

## Probably Max Loss (PLM)

- Fire incident - fire suppression equipment performs to extinguish fire
  - Estimated MRF Damage = 5% with a calculated loss of $1.5 million
  - Current Deductible = $1.5 million

## Maximum Possible Loss (MPL)

- Fire incident – fire suppression equipment is not operable/fails to extinguish fire
  - Estimated MRF and TS Damage = 85% to 100% loss
  - Calculated loss of $70 million
  - Current Deductible = $1.5 million
  - Current Coverage = $60 million

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# Property Insurance Renewal Outlook

Negatives

- Insurance Market continues to Harden:
  - Multiple years of catastrophic events
  - California wildfire season industry projections
  - Turmoil in the US and globally (COVID-19, social upheaval)

Positives

- 2016 fire Insurance settlement:
  - Additional insured parties may help reduce premium—recent settlement (Verlan)
    - SBR's insurance settled for $3.75M / BHS insurance settled for $148K
- Risk Improvement Measures:
  - Loss prevention plan
  - Independent third-party audit of the plan
  - Facility hardening (Battery capture machinery, Battery outreach campaigns, Battery collection improvements)

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# Coverage, Deductible and Risk

Engage Finance Committee (June 8)

- Evaluate insurance quotes
  - Request multiple quotes with varying coverage and deductibles
  - Provide guidance on the level of self-insurance
  - Provide guidance on reserve levels and reserve growth
  - Consider an annual aggregate deductible stop loss
    - Protects the insurance fund reserve from multiple losses in one policy year
  - Provide input on creating a "Captive"
    - Defined as an insurance company owned and controlled by its insured
    - Put own capital at risk
    - Benefits from own profitability
    - Access to reinsurance markets

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