

NAIC Climate Risk Disclosure Survey – All Questions

Reporting Year 2021

Introduction:

On behalf of the insurance companies listed below, Berkley Insurance Company (the "Company"), a Delaware domestic insurance company, as ultimate parent company of all the domestic consolidated insurance companies of W. R. Berkley Corporation, a Delaware corporation and the ultimate controlling parent of the Company ("WRBC"), files this Insurer Climate Risk Survey ("Survey") response for the 2021 reporting year. The Company is a wholly-owned subsidiary of Signet Star Holdings, Inc., which is a wholly-owned subsidiary of WRBC. The following companies, which represent a portion of the domestic insurers that are subsidiaries of the Company, were requested to provide a response to the Survey by one or more of the following regulatory bodies: California Department of Insurance, Connecticut Insurance Department, Delaware Department of Insurance, the District of Columbia Department of Insurance, Securities and Banking, Maine Bureau of Insurance, Maryland Insurance Administration, Massachusetts Division of Insurance, Minnesota Department of Commerce, New Mexico Office of Superintendent of Insurance, New York Department of Financial Services, Oregon Division of Financial Regulation, Pennsylvania Insurance Department, Rhode Island Division of Insurance, Vermont Department of Financial Regulation, and the Washington State Office of the Insurance Commissioner:

Acadia Insurance Company, a New Hampshire domiciled insurer; NAIC No. 0098-31325
Admiral Insurance Company, a Delaware domiciled insurer; NAIC No. 0098-24856
Berkley Insurance Company, a Delaware domiciled insurer; NAIC No. 0098-32603
Berkley Casualty Company, an Iowa domiciled insurer; NAIC No. 0098-15911
Berkley Life and Health Insurance Company, an Iowa domiciled Insurer; NAIC No. 0098-64890
Berkley National Insurance Company, an Iowa domiciled insurer; NAIC No. 0098-38911
Berkley Regional Insurance Company, a Delaware domiciled insurer; NAIC no. 0098-29580
Berkley Specialty Insurance Company, a Delaware domiciled insurer; NAIC No. 0098-31295
Carolina Casualty Insurance Company, an Iowa domiciled insurer; NAIC No. 0098-10510
Continental Western Insurance Company, an Iowa domiciled insurer; NAIC No. 0098-10804
Firemen's Insurance Company of Washington, DC, a Delaware domiciled insurer; NAIC No. 0098-21784
Gemini Insurance Company, a Delaware domiciled insurer; NAIC No. 0098-10833
Great Divide Insurance Company, a North Dakota domiciled insurer; NAIC No. 0098-25224
Intrepid Insurance Company, an Iowa domiciled insurer; NAIC No. 0098-10749
Key Risk Insurance Company, an Iowa domiciled insurer; NAIC No. 0098-10885
Midwest Employers Casualty Company, a Delaware domiciled insurer; NAIC No. 0098-23612
Preferred Employers Insurance Company, a California domiciled insurer; NAIC No. 0098-10900
Riverport Insurance Company, a Minnesota domiciled insurer; NAIC No. 0098-36684
StarNet Insurance Company, a Delaware domiciled insurer; NAIC No. 0098-40045
Tri-State Insurance Company of Minnesota, an Iowa domiciled insurer; NAIC No. 0098-31003
Union Insurance Company, an Iowa domiciled insurer; NAIC No. 0098-25844

WRBC's insurance business is conducted through more than 50 operating units (each individually an "Operating Unit") that underwrite on behalf of, among others, the above-named insurance company subsidiaries and WRBC's other non-U.S. insurance companies. Most Operating Units are not legal entities. The Company and all of its insurance company subsidiaries, as noted above, and Operating Units are collectively referred to as the "Group".

Please note that in 2021 approximately 20% of the Group's total premiums were for property insurance and the remaining 80% of its total premiums were primarily for liability lines of insurance.

Berkley Life and Health Insurance Company ("Berkley Life") writes health insurance and reinsurance in four primary areas: medical stop loss, managed care, special risk and group captive. Historically, Berkley Life has not experienced any increase in losses as a result of natural catastrophes such as hurricane, flood or tornado, nor does it currently anticipate this to occur in the future. Neither the management of Berkley Life nor the WRBC Enterprise Risk Management ("ERM") Department has identified any link between loss frequency and/or severity in these health insurance products written by Berkley Life and such catastrophes. Consequently, although Berkley Life has full access to WRBC's research into the potential impacts of climate change, it is not currently considered an issue for Berkley Life from an insured loss perspective.

GOVERNANCE

Narrative Questions

1. Disclose the insurer's governance around climate-related risks and opportunities. In disclosing the insurer's governance around climate-related risks and opportunities insurers should consider including the following:

- **Identify and include any publicly stated goals on climate-related risks and opportunities**
- **Describe where climate-related disclosure is handled within the insurer's structure, e.g., at a group level, entity level, or a combination. If handled at the group level, describe what activities are undertaken at the company level.**

A. Describe the board and/or committee responsible for the oversight of climate-related risks and opportunities. In describing the position on the board and/or committee responsible for the oversight of managing the climate-related financial risks, insurers should consider including the following:

- **Describe the position on the board and/or committee responsible for the oversight of managing the climate-related financial risks.**

B. Describe management's role in assessing and managing climate-related risks and opportunities.

WRBC's Board of Directors believes that risk oversight, including risks arising from ESG issues like climate change, is a key responsibility of the entire Board of Directors. It is also one of the core responsibilities of the President and Chief Executive Officer ("CEO") and the Executive Chairman and is a critical responsibility of every other senior officer of the Company and its businesses. The Board of Directors oversees management's assessment of business risks relating to the Group's insurance operations and investment portfolio. The Board and its committees receive periodic updates from the Group's management on risks, including those related to climate change, and overall ESG matters. The Board reviews corporate performance, oversees and evaluates management's systems for internal controls, financial and ESG reporting, and provides top-down governance of WRBC.

WRBC established an ESG management committee composed of WRBC's CEO and President and other senior executives. The ESG committee meets not less than quarterly, and shares information with WRBC's Board of Directors regarding ESG best practices and stakeholder interests. The ESG committee guides WRBC's ESG disclosure, including the production of its Sustainability Report and the ESG summary included in its annual proxy statement.

Senior officers are responsible for risks and potential risks as they arise in their various operational areas. WRBC's Senior Vice President - Enterprise Risk Management reports on areas of material risk to the Group, including risks related to climate change. These reports are provided regularly to WRBC's President and CEO and its Board of Directors. WRBC also enlists the support and oversight of its Enterprise Risk Management (ERM) management committee, which includes the President and CEO, the Executive Vice President & CFO, the Executive Vice President & General Counsel, the Executive Vice President of Investments and the Senior Vice President for ERM. The committee meets quarterly or more frequently if necessary, to review and monitor levels of risk. Our CEO is also a member of the WRBC Board of Directors, and reports regularly on ERM to the entire Board.

Periodically, the ERM Department produces a report based on pertinent scientific literature that updates the potential for climate change impact to the Group over defined short, medium- and long-term time periods. This report typically identifies specific monitoring and actions that WRBC may wish to consider implementing to manage the potential financial implications of climate risk. The report is shared with WRBC's ERM management committee, and relevant extracts are shared more widely.

These climate-related disclosures are submitted at the Group level. As part of governance considerations, WRBC monitors potential changes in areas such as legislation, regulation or reporting requirements relating to climate change for possible impacts on the Group and our customers. This monitoring exercise involves working with all our Operating Units to assess and comply with climate and ESG-related regulations.

For more information on WRBC's risk management or WRBC's Board's role in Risk Oversight, please see WRBC's 2022 proxy statement, located at

https://s29.q4cdn.com/304856890/files/doc_financials/2021/ar/35c3eed0-f2d4-434e-b0bc-783246b6739a.pdf

STRATEGY

Narrative Questions

2. *Disclose the actual and potential impacts of climate-related risks and opportunities on the insurer's businesses, strategy, and financial planning where such information is material. In disclosing the actual and potential impacts of climate-related risks and opportunities on the insurer's businesses, strategy and financial planning, insurers should consider including the following:*
- *Describe the steps the insurer has taken to engage key constituencies on the topic of climate risk and resiliency.*ⁱ*
 - *Describe the insurer's plan to assess, reduce, or mitigate its greenhouse gas emissions in its operations or organizations.**
- A. *Describe the climate-related risks and opportunities the insurer has identified over the short, medium, and long term. In describing the climate-related risks and opportunities the insurer has identified over the short, medium, and longer term, insurers should consider including the following:*
- *Define short, medium, and long-term, if different than 1-5years as short term, 5-10years as medium term, and 10-30years as long term.*
- B. *Describe the impact of climate-related risks and opportunities on the insurer's business, strategy, and financial planning. In describing the impact of climate-related risks and opportunities on the insurer's business, strategy, and financial planning, insurers should consider including the following:*
- *Discuss if and how the insurer provides products or services to support the transition to a low carbon economy or helps customers adapt to climate-related risk.*
 - *Discuss if and how the insurer makes investments to support the transition to a low carbon economy.*

WRBC has identified potential risks and opportunities that climate change poses to the U.S. insurance industry, and has considered how each of these risks might impact its own business over the short, medium and longer term. WRBC considers the potential impacts (both risks and opportunities) of climate change on the Group over three time periods: the next five years, five to twenty years, and beyond 20 years. A growing scientific consensus points to climate change as responsible for altering the frequency and increasing the severity of catastrophic weather events, such as hurricanes, windstorms, wildfires, floods, and other natural disasters. As a property and casualty insurance provider, key potential risks of climate change to WRBC include coastal floods, wildfires, regional variability in peril change, regulatory change and reputational risk which may affect our operations, our exposures, our investments, and our insureds. WRBC seeks to track trends in all of these areas, as well as changes in our exposures to the enterprises that are the world's most significant GHG producers.

Climate Change Risks

WRBC exposure to risks associated with climate change consists of four components: underwriting risk, catastrophe risk, investment risk, and operational risk. Each component is summarized below.

The Group is exposed to risks from climate change due to underwriting activities. These risks differ by line of business and product and could either manifest through changes in premium volume (strategic risk), changes in future loss experience (underwriting risk) or changes in the runoff of reserves (reserve risk). The analysis WRBC has performed identified several risks to the performance of the different lines of business, including:

- The agriculture industry has a significant exposure to physical risks for Other Liability Occurrence and Commercial Auto coverages due to large warehouses and crop fields being vulnerable to physical event damages. More broadly, insureds may not be able to relocate away from physical risks because generally crops must be grown in certain geographical locations where climate and land conditions are preferable.
- High carbon emittance sectors, such as Oil & Gas are expected to see widespread policies, regulations, and litigation about reducing the use of fossil fuels to encourage increased renewable energy use. Coverages the Group writes, including Other Liability Occurrence, may experience a significant impact from social inflation, which could expose insureds to new and more extreme forms of litigation.
- Environmental products, such as pollution liability coverage, are expected to see heightened transition risks due to social inflation and heightened physical risks due to the hazardous nature of pollution coverage combined with more frequent and severe weather events.
- The transportation industry is a large carbon emitting sector which is expected to see more stringent climate-related policies for personal and commercial vehicles. Insuring commercial vehicles also poses a physical risk due to entire fleets being exposed to weather events such as hurricanes and tornadoes.

The resultant level of risk will differ by Operating Unit based on the premium volume and reserve size of the lines of business they write, as well as the specifics of the business written. Factors impacting the risk to individual Operating Units include the industries insured, the geographic concentration of the business and the specific terms and conditions in the insurance policies. As detailed below, the analysis WRBC has performed allows it to modify underwriting activities to ensure these risks are managed to a reasonable level on an ongoing basis.

The Group's natural catastrophe risk appetite is set as a percentage of total capital exposed to events at various probabilities of occurrence for earthquake, hurricane and on a multi-peril basis. Percentages are used in place of dollar thresholds to scale up or down with the Group's capital resources. Utilization of risk appetite is regularly monitored and reported to the ERM management committee. Risks approaching risk appetite are reviewed by WRBC's President and CEO, and any overutilization must be

specifically addressed with approval by WRBC's President and CEO. In addition to this probabilistic view of natural catastrophe risk, WRBC also monitors estimated losses to multiple natural catastrophe realistic disaster scenarios. Actual catastrophe losses excluding COVID-related losses have averaged 2.2 loss ratio points over 2017-2021.

WRBC is also exposed to climate change risk through its investments. Risks manifest through both the underlying industries in which WRBC is invested, as well as the characteristics of specific asset types. The qualitative analysis WRBC has performed identified risks to the investment portfolio, including:

- Oil/ Gas/ Pipeline investments face the highest risk overall from climate change. This industry is exposed to a high physical risk due to significant offshore and coastal operations.
- Investments in municipal bonds in the U.S. Southeast and Southwest could be at risk from climate change due to required investments to protect the underlying municipal assets from the impacts of climate change, potentially increasing the likelihood of default.
- Investments in electric utilities are exposed to significant physical risk due to the large and complex infrastructure and equipment used in the industry, and transition risks due to the potential for the imposition of carbon pricing in various jurisdictions.

Industry portfolios with a higher climate risk profile may be de-risked by reconsidering individual investments in higher risk areas, such as portfolios with significant physical property and coastal exposure. WRBC considers the level of climate risk across the investment portfolio as part of our risk management process.

In terms of operational risks, these lie with our buildings and other physical asset investments that could be affected by hurricanes, flooding, wildfire, and other environmental events. WRBC seeks to avoid the risk of functional obsolescence of our office locations, and climate risks are considered in that analysis. Each individual property location is assessed for catastrophe risk, with particular focus on those nearest a coast or near river estuaries. When considering real estate purchases, WRBC's investment team considers the exposure to catastrophes at that location. When there is a risk of natural catastrophe, our ERM and investment teams work together to assess the current risk and review flood risk maps and elevation to consider the possibility of sea level risk over future years. These factors are taken into consideration when determining whether to proceed with the purchase.

The building environment accounts for almost 40% of global energy-related carbon emissions, and so WRBC embraces sustainable building standards when practicable. As part of our efforts to mitigate climate risk to our operations, including leased assets, WRBC works to procure office space at LEED-certified buildings where practical. Our One Station Place office in Stamford, Connecticut is part of a carbon neutral community of buildings. Part of the Metro Center complex, this building has also been Energy Star certified for the past three years in a row. The property manager implements multiple sustainability initiatives at the One Station Place office in partnership with the employees there.

Climate Change Opportunities

WRBC has also identified many opportunities to benefit our Operating Units amid uncertainties associated with climate change. These include, but are not limited to:

- Insuring alternative energy companies: Several of our Operating Units insure companies in the renewable energy sector, which supports the growth of renewable energy in the U.S. By insuring these operations, the Company makes a positive contribution to the growth of operations that produce energy from non-fossil fuel sources, which may reduce greenhouse gas emissions associated with the production of energy from fossil fuel sources.
- Supporting the transition to electric vehicles: One Operating Unit insures the development and maintenance work for electric vehicle manufacturing.
- Providing support for emergency evacuation procedures: Another Operating Unit assists clients with developing emergency evacuation procedures for tornadoes, hurricanes, ice/snow, and other weather-related events and provides training materials to teach employees how to safely deal with heat stress and hurricane clean-up.
- Supporting Operating Units with ESG disclosure requirements: One of our Operating Units provides management liability coverages to U.S. publicly-traded and large privately-held companies, which are by nature, complex, sophisticated operations already heavily focused on risk management, including climate change initiatives. The obligations of U.S. public companies on these topics generally arise out of SEC regulations, accounting standards, Sarbanes-Oxley, and state regulations requiring mandatory reporting and disclosures with respect to climate change issues to assist in managing these exposures. Additionally, those insureds often adhere to protocols that have emerged for voluntary reporting of environmental matters established by non-governmental entities including disclosure of information regarding environmental, sustainability, corporate social responsibility and more recently climate change and greenhouse gas emissions.
- Preserving wetlands: One Operating Unit has created a new insurance product for clients engaged in the restoration, construction, enhancement and preservation of wetlands and streams (aquatic resources) with the goal of offsetting loss of resources from other projects authorized by the U.S. Army Corps of Engineers. This product provides the customer with the confidence that the construction of these aquatic resources can be completed. To date, the Operating Unit has provided coverages to over 34 policyholders who develop more than 3,500 acres of wetlands and over 44 miles of streams.

Products or services that support the transition to a low carbon economy or help customers adapt to climate-related risk

WRBC seeks to support the transition to a low carbon economy through its policies and practices. We believe that withdrawing all underwriting for specific sectors is not an appropriate or responsible approach to these efforts and we will continue to consider underwriting insurance for companies engaged in legal businesses. We recognize the issues and challenges that come with certain exposures, such as those in fossil fuel industries, and take into consideration the messages provided by

environmental and climate special interest groups. However, these issues have many dimensions that we seek to weigh and assess, and we remain conscious of the views of various stakeholders. We endeavor to strike a balance between long-term objectives and the short-term impacts by considering the risks inherent in each business during the underwriting process, including the environmental and social risks and their potential impact on the financial condition of the business.

WRBC provides products and services to help policyholders adapt to climate-related risk and reduce losses caused by climate change-influenced events. Such products and services include the following:

Loss Control Services and Education

The Operating Units regularly update and offer policyholders and distribution partners loss control services, advising ways to reduce the risk of losses caused by various climate-influenced risks. To mitigate climate-influenced loss, various Operating Units use risk surveys/inspections to determine roof integrity, erosion/landslide risk, brush fire/forest fire precautions, excess snow loading on roofs, exposure to hailstorms, and provide customers with ways to proactively mitigate their risk of loss.

Some of these inspections are now being conducted virtually, using point-to-point technology for virtual risk assessment and hazard identifications, which also reduces our carbon footprint.

We encourage policyholders to create/implement Emergency Action Plans (EAP) and train their employees on those plans to ensure that they know the actions to take during emergency events (e.g., tornadoes, hurricanes, fires, workplace violence, civil unrest, etc.). In addition, the Operating Units may provide informational resources to help policyholders create and implement EAPs.

Loss Control professionals at the Operating Units, provide the following (amongst others), sometimes through third-party vendors:

- Data on potential loss;
- Measures needed to protect property;
- Evaluation of losses within a regional area that are prone to certain types of losses;
- Advice on resiliency around natural perils;
- Training webinars to assist in education and loss mitigation;
- Green coverage endorsements for property, inland marine and equipment breakdown to encourage policyholders to think green;
- Websites containing tips on a broad range of risk mitigation measures such as disaster planning, construction, green construction, influences of weather and safety that provide insureds with practical tools as well as online training;
- Mitigation advice on backup power generation systems and suppliers available to insureds;
- Tips on “green construction”, energy efficiency, influences of weather and other related topics via social media pages, providing practical tools for insureds to handle potential climate hazards and mitigate the size/severity of the potential loss;
- Guidance on managing upcoming hurricane seasons that typically point readers towards a checklist from the National Hurricane Survival Initiative and FEMA’s Business Toolkit;

- Training materials through a third-party risk management vendor on the subject of reducing emissions. The vendor provides operational improvement or technological solutions that include operational efficiency, fuel efficiency, loss prevention and spill mitigation; and
- Training regarding how to present safety meetings to employees as it relates to high wind, changing road conditions and winter driving conditions.

Various Berkley Operating Units communicate through insurance industry trade organizations to the NAIC and to members of Congress on overall loss control issues, such as changes to FEMA to encourage actuarially sound rates, building codes, safety and storm preparedness. Specifically, one Operating Unit is an active participant in the Inland Marine Underwriters Association (IMUA) and sits on panels at industry events promoting loss control regarding weather-related events.

Personal Lines

Berkley One, our personal lines Operating Unit, has established a number of risk management and mitigation tools with its business. The Berkley One personal lines business recognizes that a home saved from a total loss is one that needn't be rebuilt, thus reducing demand for natural resources. In areas of the country exposed to wildfire, it engages the services of a private wildland fire monitoring and response provider who can take pre-suppression activities to lessen the threat to properties.

Also in 2021, Berkley One's risk management services formalized its use of pilot aerial imagery to view residential roofs to help determine integrity for withstanding hail and other weather-related risks.

This Operating Unit continues to offer discounts to policyholders for loss mitigation and has seen increased utilization of an additional coverage that reimburses post-loss purchases of loss mitigation devices. Several homeowners have taken advantage of that coverage, by installing loss mitigation devices such as water shut-off devices, generators, back-up power for sump pumps and alarm systems. Berkley One continues to provide resources for customers seeking to take proactive steps to mitigate loss, such as the purchase of storm shutters through its network of service providers. It also continues to provide a variety of other services, including blog posts and fact sheets providing timely loss control advice; offering green coverage endorsements which cover loss to alternate power generating equipment and alternative water systems and which provide coverage to upgrade to more sustainable materials in the event of a covered loss; and offering premium credits for greenhouses and storm protective building materials.

Other

Another Operating Unit is specifically focused on insuring operations in the renewable energy sector, which supports the growth of renewable energy in the U.S. By insuring these operations, the Operating Unit makes a positive contribution to the growth of operations that produce energy from non-fossil fuel sources, which reduces greenhouse gas emissions associated with the production of energy from fossil fuel sources. This Operating Unit has employees going through the Energy Workforce & Technology Council (EWTC) ESP Certification Program in 2022. This training may help to develop a guide for policyholders to support implementation of ESG initiatives.

Investments to support the transition to a low carbon economy

WRBC's Board of Directors and senior management believe that investing responsibly makes the Group more resilient and sustainable, while protecting it and its clients from unacceptable levels of risk. Incorporating ESG criteria into its investment decisions, along with many other factors, can improve the Group's performance over the long term, potentially bringing benefits for many years to come – with some important short-term benefits for our investors, stakeholders and insureds as well.

The current transition to a lower-carbon economy provides a good example of how avoiding ESG risks makes economic sense. Preparing for this global shift is part of our strategy to avoid holding investments that may become stranded assets. As WRBC positions itself and its clients to thrive in a low-carbon economy, we have set three objectives to advance our shift to low-carbon investing:

- We target certain investments in infrastructure renewables and green bonds, and grew our green and sustainable bond portfolio by more than 67% in 2021 after growing it by more than 70% in 2020 and doubling it in 2019;
- We apply the 30% rule for thermal coal, screening for investments in utilities companies that generate 30% or more of their revenues from thermal coal mining; and
- We continually seek opportunities to increase the environmental or sustainability-related certifications (i.e., LEED-designated buildings) for our property portfolio.

Our investments in utilities with greater than 30% exposure to coal declined by 41% in 2021 and at year end 2021, represented approximately 0.4% of our cash and investments.

C. Describe the resilience of the insurer's strategy, taking into consideration different climate-related scenarios, including a 2 degree Celsius or lower scenario.

See Response to Question 3, below.

RISK MANAGEMENT

Narrative Questions

3. *Disclose how the insurer identifies, assesses, and manages climate-related risks. In disclosing how the insurer identifies, assesses, and manages climate-related risks, insurers should consider including the following:*

- ***Describe how the insurer considers the impact of climate related risks on its underwriting portfolio, and how the company is managing its underwriting exposure with respect to physical, transition and liability risk.****
- ***Describe any steps the insurer has taken to encourage policyholders to manage their potential physical and transition climate related risks, if applicable.****
- ***Describe how the insurer has considered the impact of climate-related risks on its investment portfolio, including what investment classes have been considered.***

WRBC considers the potential impacts of climate change on our Company over three time periods: the next five years, five to twenty years, and beyond 20 years.

Underwriting

WRBC's Operating Units incorporate specific climate change factors and considerations in their underwriting and pricing processes. This allows each Operating Unit the optionality to deal with localized climate change impacts based on the specific jurisdictional factors and information related to each client. WRBC reviews risk to the overall portfolios, rather than assessing the impact of specific industries or activities on an individual basis.

Addressing Identified Climate Risk

In response to the WRBC ERM team's catastrophe analyses and reports, WRBC is taking several actions to manage its exposure, including: the use of peril-specific deductibles and/ or sublimits, the non-renewal of specific policies, the re-underwriting of particular segments of the portfolio and the purchase of additional reinsurance protection. In addition, WRBC's decentralized operating structure and typical one-year policy term generally create the nimbleness to quickly modify pricing, terms and conditions to achieve targeted risk-adjusted returns or enter and exit business as dictated by the changing risk landscape.

Catastrophe modeling and management, along with other risk and stress testing, are considered in the evaluation of our risk capital needs, taking into account regulatory requirements, financial strength and credit rating considerations, among other factors. Aggregate catastrophe losses for the period are reported in quarterly earnings releases and SEC filings for each reporting segment and in the aggregate for the Group. Because of WRBC's rigorous risk management and commitment to building long-term shareholder value through superior risk-adjusted returns, the impact on WRBC's earnings from catastrophe losses has been below the industry average for many years.

Notwithstanding the foregoing, as industry practices and economic, legal, judicial, social and other environmental conditions change, unexpected and unintended issues related to claims and coverage may emerge. These issues may adversely affect our business by either extending coverage beyond our underwriting intent or by increasing the number or size of claims.

WRBC continues to monitor industry practices and developments related to standard climate change exclusions on policies, and one Operating Unit has introduced a climate change risk exclusion.

WRBC's approach to risk is designed to allow it to avoid excessive costs. The Group exercises particular caution in the following areas:

- The Group does not typically provide flood coverage within FEMA flood zones; where flood coverage is provided in FEMA flood zones, only a modest limit is provided.
- The Group does not currently write homeowners insurance in California, where the vast majority of wildfire losses take place. To the extent permitted by insurance regulation

applicable to each state, we are using a wildfire risk score as part of our risk selection and underwriting process for homeowner's business. To help mitigate the risk of wildfire damage, we employ a range of services for individual homeowners.

- The Group does not offer crop insurance (crop multi-peril business), which could be significantly affected by drought.

Additional Environmental Factors Affecting Risk Appetite for Operating Units

Climate change is just one of the environmental factors affecting the Group's risk appetite and selection. Others include:

- Environmental risk and impact management;
- Resource efficiency;
- Pollution prevention and management;
- Ecosystems and biodiversity; and
- Low Carbon Technology (including renewable energy insurance, energy savings warranties and carbon capture and storage insurance).

Steps to encourage policyholders to manage climate related risks

Please see response to Question 2, above.

Consideration of impact of climate related risks on investment portfolio, including classes considered

WRBC considers climate change in its investment strategy in order to reduce the likelihood of climate risks negatively impacting the portfolio. Examples of actions taken within the investment strategy to manage the risks from climate change include:

- Carrying out qualitative risk assessments and quantitative analysis exercises on a periodic basis to support understanding of the risks from climate change in the current investment portfolio.
- Seeking to limit investments in municipal bonds in areas that are most subject to catastrophic loss. Our ERM and investment teams coordinate to monitor the Group's exposure to municipal bonds in those locations that we expect are most likely to experience significant catastrophes.
- Favoring utility investments in natural gas-fired facilities over investments in facilities which utilize coal.

The majority of our investments are in fixed-income securities with, at present, an average duration of less than 2.5 years, which reduces the potential financial impact of long-term economic changes, including those arising from climate change.

In addition to achieving appropriate risk-adjusted returns, our investments may help enable many environmental and social improvements. For example, we invest in municipal bonds that support water and sewer, waste, pollution, industrial development (IDB), pollution control revenue (PCR) and resource recovery projects, which help mitigate pollution, provide safe drinking water, promote conservation

and, in many cases, respond to changing climate conditions. Housing bonds provide funding for multi-family or single-family housing projects, often for the low-income sector, while transportation bonds support our country's infrastructure by improving toll roads, bridges and tunnels. Additionally, our investments in secondary education and higher education support enterprises directly involved in improving communities and the lives of their students. We also maintain investments in low-income housing tax credits, which help build affordable housing, as well as other green bonds.

Examples of our investing within certain asset classes include environmentally certified real estate, clean utilities, and housing for low-income families.

Liquidity is also an important consideration. WRBC's Investment Policy Statement states that portfolio holdings must be sufficiently liquid to ensure timely payments of all obligations without material impact on market values.

In order to accomplish these liquidity goals, WRBC:

- Targets a minimum of 5% of the Company's assets in cash, cash equivalents and short-term securities, including the parent account;
- Maintains a laddered maturity schedule of high-quality fixed income securities (overall portfolio average rating of AA-) such that a significant portion matures each year;
- Generates cash flow through investment income generated by the asset portfolio, as well as from operations; and
- Maintains significant liquidity at the parent company which can be contributed to the insurance subsidiaries, if necessary.

Liquidity stress tests are performed with the assistance of WRBC's asset risk management system. The system is able to split our fixed income portfolio into various tiers based on its proprietary algorithm that tracks historical liquidity trends. Each security is assigned to one of the five liquidity tiers which the Investment Department can then actively manage to seek an optimal balance. These reports are run quarterly or more frequently if necessary.

WRBC believes the above-described combination of operating cash flows and approximately 5% in cash, cash equivalents and short-term securities should adequately address the Company's liquidity needs. We also have the option to seek to raise additional capital from public and private markets, if needed. The Company's outstanding long-term indebtedness does not have any liquidity or rating agency covenants that could cause it to be called early by investors. Furthermore, our assumed reinsurance business, in general, does not have rating agency downgrade triggers that could materially impact our liquidity position. The Company also has a \$20 million credit facility allowing for the issuance of standby letters of credit on behalf of the Company and its subsidiaries, and effective April, 1, 2022 entered into a senior unsecured revolving credit facility that provides for borrowings up to an aggregate of \$300 million with a sublimit of \$50 million for letters of credit.

In addition to monitoring physical risk and transition risks within the Group's underwriting activities and investment portfolio, WRBC also continues to monitor potential changes in areas such as legislation,

regulation or reporting requirements relating to climate change for possible impacts on the Group and its customers. This monitoring exercise involves working with all of its Operating Units to assess climate and ESG related regulations, and to seek to develop a corporate level response and action plan to aid our compliance therewith. Among other actions, WRBC may refine its underwriting or risk appetite, make changes to its investment portfolio, establish new or additional procedures and processes and or adjust staffing levels or our use of contracted services to help us address such changes.

A. Describe the insurers' processes for identifying and assessing climate-related risks. In describing the insurers' processes for identifying and assessing climate-related risks, insurers should consider including the following:

- *Discuss whether the process includes an assessment of financial implications and how frequently the process is completed.**

B. Describe the insurer's processes for managing climate-related risks.

C. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the insurer's overall risk management. In describing how processes for identifying, assessing, and managing climate-related risks are integrated into the insurer's overall risk management, insurers should consider including the following:

- *Discuss whether climate-related risks are addressed through the insurer's general enterprise-risk management process or a separate process and how frequently the process is completed.*
- *Discuss the climate scenarios utilized by the insurer to analyze its underwriting risks, including which risk factors the scenarios consider, what types of scenarios are used, and what timeframes are considered.*
- *Discuss the climate scenarios utilized by the insurer to analyze risks on its investments, including which risk factors are utilized, what types of scenarios are used, and what timeframes are considered.*

Processes

The Group's process and policy on risk management and investment management as regards climate change is summarized as follows:

- WRBC sets an overall appetite level for catastrophe risk, and regularly monitors the Group's exposure.
- Catastrophe risk is a key consideration in the strategic management of the Group, which includes consideration of the potential impact of climate change relative to the Group's business plan.
- WRBC's ERM Department investigates scientific reports regarding the potential impacts of climate change on insured losses, and summarizes these for the WRBC ERM committee.

- The ERM Department investigates scientific reports in respect of the potential impacts of climate change on invested assets, and summarizes these for the WRBC Investment Department and the ERM committee.
- The ERM Department investigates the potential impacts of climate change on operational aspects of the Group and summarizes these for the ERM committee.
- The ERM Department investigates the possibility of “model miss” within vendor catastrophe models. This includes a comparison of modeled industry losses against revalued historic losses, investigation of individual sub-components within the model, and “stress testing” model frequency and severity assumptions.
- The Group uses the investigations of the ERM Department to develop its “own view” of catastrophe risk. This may differ from the view of the catastrophe modeling vendors, and in some instances may cause the Group to take a more conservative view of certain types of risk.
- This “own view” of catastrophe risk is used both at a macro level, for assessing the Group’s overall exposures, and at a micro level, for assessing an individual risk location.
- The ERM Department monitors key catastrophe exposures for the Group and for each individual Operating Unit. Each Operating Unit receives data on its exposures and uses mapping software developed specifically for the monitoring and modeling of catastrophes. This mapping software allows each Operating Unit to identify its exposed limits by line of business and type of exposure (buildings, contents, business interruption), the number of locations, and the actual policies that are exposed in a particular area.
- Each Operating Unit includes within its business plan the catastrophe-exposed limits they anticipate for the next year by region and county tier; the ERM Department monitors each Operating Unit against its planned aggregate exposure over the course of each year.
- The ERM Department identifies to both WRBC’s senior management and to the Operating Units those locations and policies which are most likely to give rise to a substantial loss from hurricane.
- The ERM Department regularly provides updates on published articles and reports on climate change to WRBC senior management and the Operating Units.
- The Group has various risk controls around its reinsurance program. Reinsurers are carefully chosen from a diverse panel of reinsurers. Reinsurers are regularly reviewed and must demonstrate, among other things, a high credit rating. The Group also avoids excessive concentration of cessions to any one reinsurance group. The likelihood that any one of the Group’s reinsurers would be unable to pay losses is remote given the Group’s focus on high credit ratings. Furthermore, diversification of its reinsurers is designed to mitigate the financial consequences if this were to occur and keep the potential exposure within the Group’s overall risk appetite.
- WRBC restricts its investments in municipal bonds in areas that it expects are most subject to catastrophic loss.

- The ERM and Investment departments coordinate to monitor the overall exposure to municipal bonds in those states that are most likely to experience significant catastrophes.

Climate Scenarios

The Group uses computer models to assess the risk from hurricane and from severe convective storm (including tornado). More details on the computer modeling are included in the response to question 4 (Metrics and Targets).

While it is clear that there are significant upwards trends in both economic and insured losses arising from natural catastrophes, if the losses for changes in exposure and for societal changes are normalized, these upwards trends are less pronounced. For example, there is no or little upward trend in the incidence or the intensity of the actual “perils” for tropical cyclone (hurricane, typhoon) or severe tornadoes. There is a significant increase in both the number and the values of buildings and contents, oftentimes in areas that are particularly prone to weather-related catastrophes such as Gulf and Florida coastal areas.

The ERM Department investigates trends in weather-related losses by peril, as it recognizes that the dominance of wind-related losses may disguise trends in other perils. This note is focused on North America, but similar results have been seen in a wide range of studies.

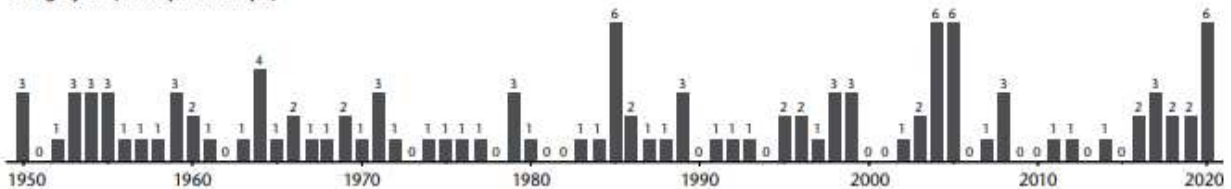
Hurricane

Only a small proportion of hurricanes forming in the Atlantic Basin actually make landfall in the US. Taking observations from 1880 onwards, there is actually a slight downward trend in the number of landfalling tropical storms and hurricanes. Taking observations from 1950 (before which the quality of the data in NOAA’s database is lesser) to 2021, there is virtually no trend in the number of landfalling hurricanes, as illustrated in the chart below, with the additional observation that in 2021 two storms made US landfall at hurricane strength (Ida and Nicholas).

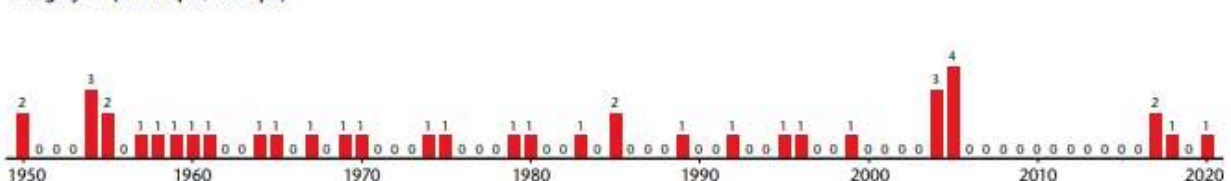
US Hurricane Landfalls, 1950-2020

Exhibit 63: United States Hurricane & Major Hurricane Landfalls

Category 1+ (≥74 mph / 119 kph)



Category 3+ (≥111 mph / 179 kph)



Source: Aon 2020 Annual Weather, Climate and Catastrophe Insight Report, Exhibit 63

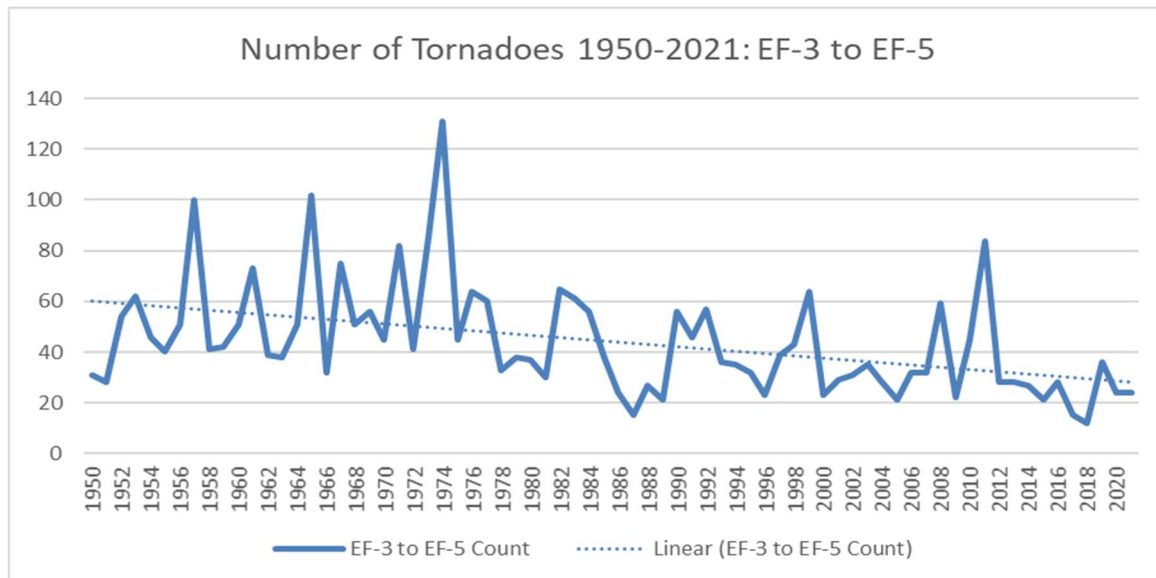
2021 was an active North Atlantic hurricane season, with 21 named storms 8 of which made landfall in the US. The strongest hurricane was Ida, which made landfall in Louisiana as a category 4 hurricane, and resulted in approximately \$28 billion of insured losses.

The paper “Tropical cyclones and climate change assessment”, authored by Thomas Knutson, Suzana J. Camargo, Johnny C. L. Chan, Kerry Emanuel, Chang-Hoi Ho, James Kossin, Mrutyunjay Mohapatra, Masaki Satoh, Masato Sugi, Kevin Walsh, and Liguang Wu, published in the Bulletin of the American Meteorological Society in March 2020, models projections of global tropical cyclone activity in response to 2 degrees Celsius of anthropogenic global warming. The paper suggests that while global tropical cyclone frequency would decrease, the proportion of category 4 and 5 events would increase. The paper is most confident in model projections with respect to sea level rise and precipitation increases resulting in more storm inundation and higher precipitation rates accompanying tropical cyclones in response to 2 degrees Celsius of anthropogenic global warming.

The ERM Department also investigates the potential for sea level changes to impact the storm surge that could occur in conjunction with hurricane. In a number of areas, the effect is compounded by land subsidence, for example the subsidence due to post glacial rebound in New York, and groundwater extraction in New Orleans.

Tornado

Tornado data is available as far back as 1950, however, the older years understate the number of the least damaging EF-0 tornadoes. The introduction of Doppler radar combined with increasing population and greater ease of recording and reporting events via cell phones and other mobile devices have greatly increased the number of EF-0 tornadoes reported. From an insurance perspective, category EF-3 to EF-5 cause the majority of meaningful insurance losses. However, the number of tornadoes for categories EF-3 to EF-5 shows no upward trend over the period from 1950 onwards.



Source: NOAA, Storm Prediction Center, Severe Weather Database Files

<http://www.spc.noaa.gov/wcm/>

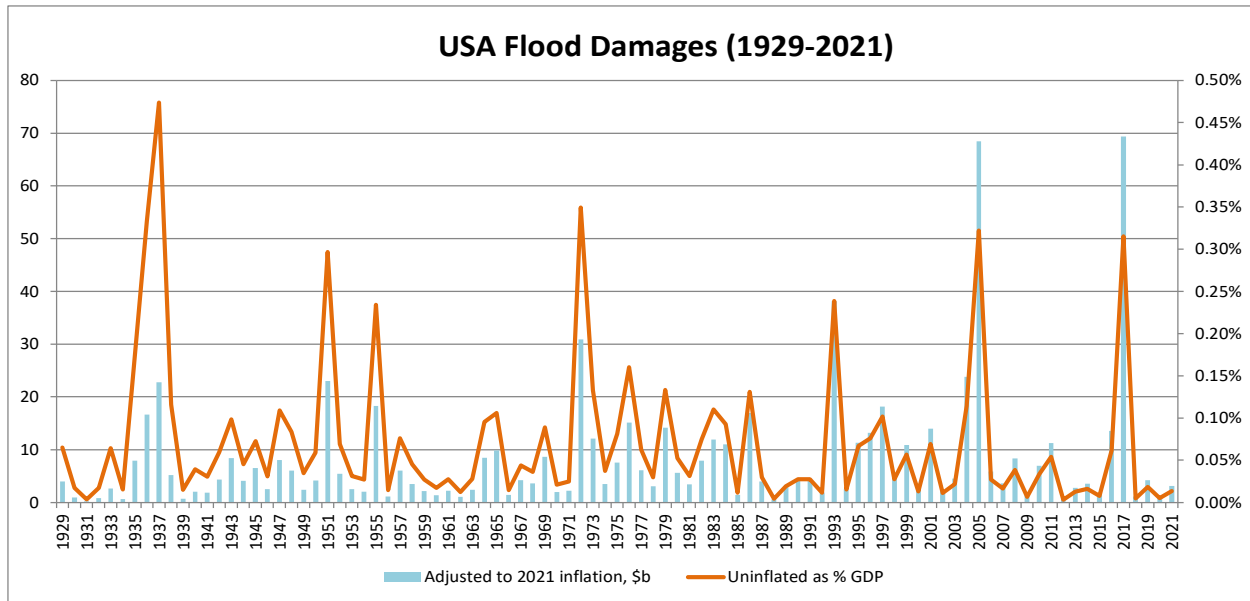
Previous academic studies, such as “Normalized tornado damage in the United States: 1950– 2011” by Simmons et al. 2012, indicated that the primary driver of increased loss costs from tornadoes is exposure change.

Flood

From a risk management perspective, coastal flooding due to tropical cyclones is considered within the Group’s hurricane risk assessment. However, the Group also considers riverine flood and surface water flood. Anticipated long-term climate change impact on rainfall, including extreme precipitation days, varies significantly by territory. Flood is also affected more by socio-economic changes, such as the increase in paved areas that results from urbanization.

Flood damages as a percentage of GDP show little upward trend; the chart below shows flood damages in US mainland and territories, excluding coastal flooding, as a percentage of GDP (orange line), and flood damages indexed on construction cost.

The ERM Department continues to investigate computer models for riverine flood and surface water flood. Initial analyses indicate that this peril is not material for the Group compared to other catastrophe perils.



Source: NOAA Hydrologic Information Center - Flood Loss Data

<http://www.nws.noaa.gov/hic/>

for years 1929 to 2014

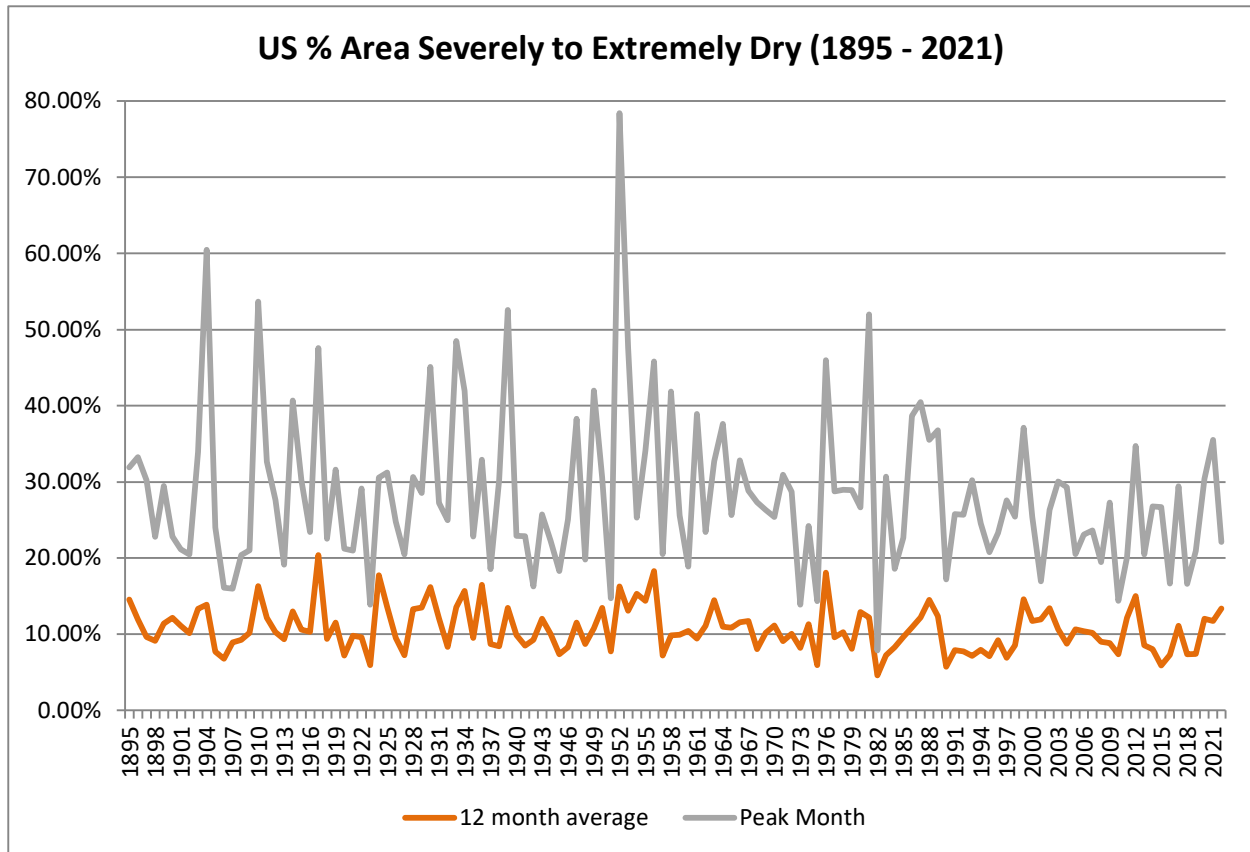
<https://www.weather.gov/water/>

for years 2015 to 2021

Drought

Within the past century, the most significant drought event in the US was the “dust bowl” of the 1930s. During the last century, it is apparent that the El Nino / Southern Oscillation (ENSO) have a significant impact on the USA rainfall / drought conditions, in addition to which there appears to be an underlying modest upwards trend in the ‘Severely to Extremely Dry’ acreage in the USA.

The chart below shows the US national percent area that is severely to extremely dry for each year 1895 to 2021. The grey line shows the peak month in each year, and the orange line show the annual average. There is no upward trend in either data set.



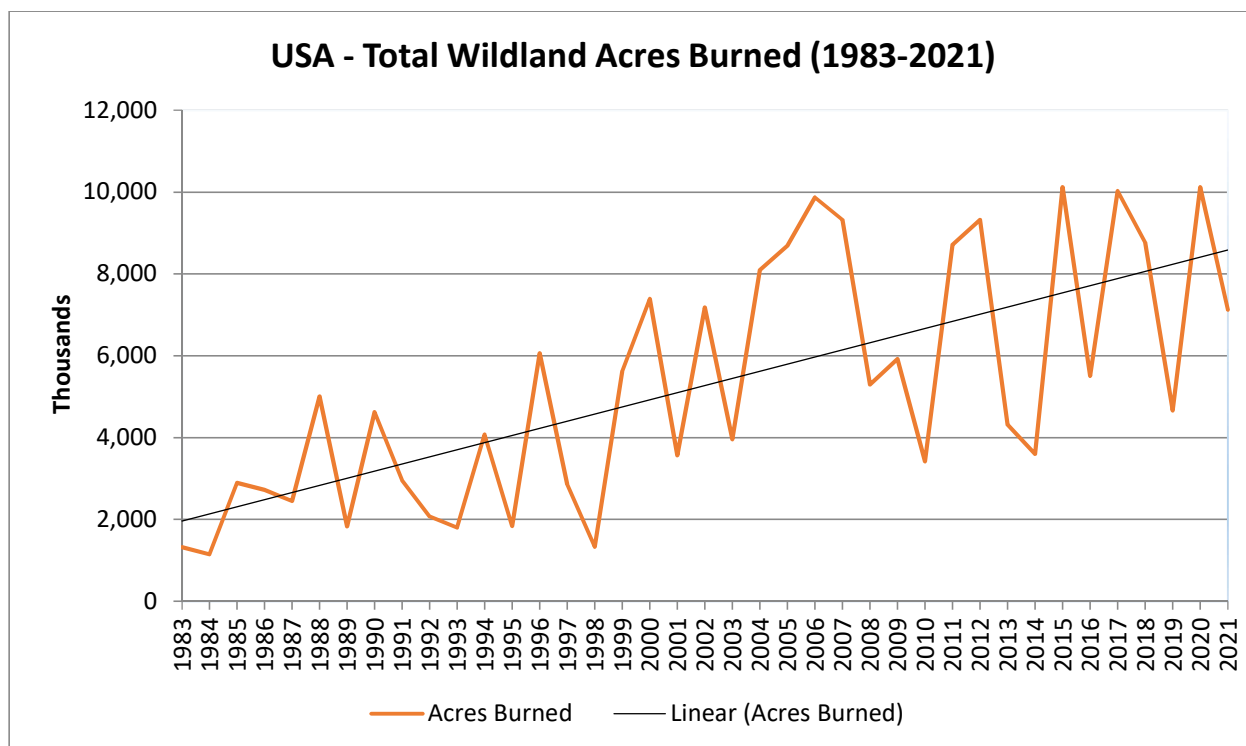
Source: US National Percentage Area Severely to Extremely Dry data from National Oceanic and Atmospheric Administration, <https://www.ncdc.noaa.gov/temp-and-precip/uspa/wet-dry/00> [copy and paste into browser]

When investigating the potential impact of climate change it is beneficial to obtain data for a longer period. NOAA has results from paleoclimatology studies that provide information on drought in North America spanning centuries. In the late 16th century there was a drought significantly more severe than anything subsequently experienced in the US. These studies also indicate that droughts similar to the 1950s, in terms of duration and spatial extent, occurred once or twice a century for the past three centuries (for example, during the 1860s, 1820s, 1730s).

From an insurance perspective, the business line that might be most significantly and directly impacted by drought is crop insurance. Operating Units do not currently offer this coverage. There is also a link between extended periods of drought and frequency and severity of wildfire.

Wildfire

As one measure of wildfire trend we monitor annual acres burned. There are a number of factors that might influence acres burned, including controlled (deliberate) burning to reduce wildfire fuel, increased housing density in wildland areas, and periods of drought.



Source Data: National Interagency Fire Center, Total Wildland Fires and Acres (1983- 2020)

<https://www.nifc.gov/fire-information/statistics/wildfires>

Historically, wildfire has impacted personal lines insurance far more than commercial lines. For the period 1998 through 2014, commercial lines industry insured losses accounted for less than 15% of the total PCS wildfire losses in any year, with an average of 3% per year. Over 2015-2021, the commercial lines share increased to an average of 24%. 85% of these commercial wildfire losses for the period 1998 through 2021 were in California, as were 85% of the total industry insured wildfire losses in the same period.

The Berkley One personal lines Operating Unit business started writing a portfolio of high net worth homeowner's business in 2017 and as of November 2022 is not currently licensed to write homeowners in California. To the extent permitted by insurance regulation applicable to each state, the Group is using a wildfire risk score as part of its risk selection and / or underwriting process for homeowner's business. The Group employs a range of services for individual homeowners to help mitigate the risk of wildfire damage.

METRICS and TARGETS

Narrative Questions

4. *Disclose the metrics and targets used to assess and manage relevant collateralized risks and opportunities where such information is material. In disclosing the metrics and targets used to assess and manage relevant collateralized risks and opportunities where such information is material, insurers should consider including the following:*

- Discuss how the insurer uses catastrophe modeling to manage the climate-related risks to your business. Please specify for which climate-related risks the insurer uses catastrophe models to assess, if any.***

The Group takes various actions, including the use of catastrophe modeling, to assess and manage the risks climate change poses to the business described in the responses herein and as further noted below:

- The Group actively monitors its exposures to potential catastrophe losses. This is done both by monitoring the aggregate exposures and by the use of computer modeling of such losses.
- All US property business written in the Group is modeled within computer models developed specifically for this purpose. The Group licenses one vendor model, and outsources modeling in a second vendor model to provide a second perspective on catastrophe risk.
- The results of the computer modeling are examined at the Group level, at the individual Operating Unit level, and at the individual policy level.
- The ERM Department identifies to both WRBC senior management and to our Operating Units those locations and policies which are most likely to give rise to a substantial loss from catastrophic exposure. Operating Units are expected to take appropriate action on any policy that gives rise to too great a catastrophe exposure; such actions may include the introduction of peril-specific deductibles and / or sublimits, the non-renewal of specific policies, the re-underwriting of particular segments of the portfolio, and the purchase of additional reinsurance protection.
- The computer modeling results are discussed each quarter by the WRBC ERM management committee.
- The computer modeling results are used as part of the Group's assessment of its (ceded) reinsurance strategy. This reinsurance protects the Group if a damaging event should occur.
- The ERM Department investigates the possibility of "model miss" within vendor catastrophe models; this includes a comparison of modeled industry losses against revalued historical losses, investigation of individual sub-components within the model, and "stress testing" model frequency and severity assumptions

- Both WRBC senior management and our Operating Units are regularly provided with updates on the latest published articles and reports on climate change as part of the Enterprise Risk Management monthly update report.

With regard to catastrophe modeling specifically, catastrophe risk is a key consideration in the strategic management of WRBC, and WRBC has set an overall appetite level for this type of risk. WRBC establishes a risk appetite for its key risks as a percentage of capital, which indicate the size of loss it could sustain without materially impacting the ongoing business. WRBC's philosophy is that it should avoid risks that might prevent it from doing business tomorrow in the same way it does today.

As part of this process, WRBC's ERM team monitors key catastrophe exposures for the Group overall and for our individual Operating Units and identifies those locations and policies that are most likely to give rise to a substantial loss from catastrophic events such as hurricanes, tornadoes, flood, drought, and wildfire.

Climate Risk in Catastrophe Modeling

To predict and manage the effects of climate change on catastrophe risks in its business, WRBC's ERM team studies scientific reports on the potential impacts of climate change and conducts sophisticated modeling and analysis. This process enables WRBC to evaluate the possible effects of climate change on potential insured losses, invested assets and operations.

WRBC uses computer models developed specifically to assess the risk from weather-related catastrophe events, including but not limited to tornados, hurricanes and severe convective storms, and outsources additional modeling to vendors to provide a second perspective on catastrophe risk. WRBC monitors and forecasts potential frequency and severity of such events through investigating several available vendor models and testing alternative assumptions. WRBC continues to investigate available computer models for riverine and surface water floods. The computer modeling results are discussed each quarter by WRBC's ERM management committee.

For example, WRBC's ERM team has investigated the potential for sea level changes to impact the storm surge that could occur in conjunction with a hurricane. In a number of locations where WRBC Operating Units operate, the effect is compounded by land subsidence - for example the subsidence due to post glacial rebound in New York, and groundwater extraction in New Orleans. WRBC identifies and models its hurricane risks in 23 states that are most likely to be affected by these perils, and on an annual basis has its exposures modeled in an alternative vendor model with a broader set of states.

WRBC provides each Operating Unit with data on its exposures and mapping software licensed by WRBC that has been developed specifically for the monitoring and modeling of catastrophes. This mapping software allows each Operating Unit to identify its exposed limits by line of business and type of exposure (buildings, contents, business interruption), the number of locations and the actual policies that are exposed in a particular location.

Each Operating Unit includes within its business plan the catastrophe exposed limits it anticipates for the next year by region and county tier, and the WRBC ERM team monitors each business against their planned aggregate over the course of each year.

To make the modeling as robust as possible, the WRBC ERM team investigates the possibility of “model miss” within vendor catastrophe models; this includes a comparison of modeled industry losses against revalued historic losses, investigation of individual sub-components within the model, and stress testing model frequency and severity assumptions.

WRBC does not model types of risk for which the available models are not currently adequate. We are working to develop our own models for those types of risk, such as wildfires.

Building a better model for wildfire risk

Although personal property has traditionally accounted for the greater proportion of industry-wide insured losses from wildfire, the share of commercial property losses from wildfires in the U.S. has been increasing. For the past several years, WRBC’s risk analysis has pointed to a possible increase in the frequency of wildfires in the U.S., as well as a larger average area burnt in a single wildfire. We have developed an accumulation model for wildfire risk in California for use in our Lloyd’s syndicate. Data is updated to reflect the recent wildfire activity and the number of acres burned. The model is used in both underwriting and monitoring risk accumulations, for both primary and reinsurance business.

- A. *Disclose the metrics used by the insurer to assess climate-related risks and opportunities in line with its strategy and risk management process. In disclosing the metrics used by the insurer to assess climate-related risks and opportunities in line with its strategy and risk management process, insurers should consider including the following:***
- In describing the metrics used by the insurer to assess and monitor climate risks, consider the amount of exposure to business lines, sectors, and geographies vulnerable to climate-related physical risks [answer in absolute amounts and percentages if possible], alignment with climate scenarios, [1 in 100 years probable maximum loss, Climate VaR, carbon intensity], and the amount of financed or underwritten carbon emissions)***
- B. *Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.***
- C. *Describe the targets used by the insurer to manage climate-related risks and opportunities and performance against targets.***

Please see WRBC’s 2021 Sustainability Report, pages 51-57. Additional information regarding GHG emissions will be included in the WRBC 2022 Sustainability Report.