#### Climate Risk Survey – All Questions

#### **Reporting Year 2020**

#### Introduction:

On behalf of the insurance companies noted below, Berkley Insurance Company (the "Company"), a Delaware domestic insurance company, as ultimate parent company of all the consolidated insurance companies of W. R. Berkley Corporation, a Delaware corporation and the ultimate controlling parent ("WRBC"), files this climate risk survey response for the 2020 reporting year. The Company is a whollyowned subsidiary of Signet Star Holdings, Inc., which is a wholly-owned subsidiary of WRBC. The following companies, which represent a portion of insurers that are subsidiaries of the Company, were requested to provide a response to the Insurer Climate Risk Survey ("Survey") by one or more of the following: 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 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; NAICNo. 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 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 the above 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 approximately 20% of the Group's total premiums are for Property insurance and the remaining 80% of its total premiums are 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 niche health insurance products written by Berkley Life and natural catastrophes such as hurricane, tornado, flood, drought or wildfire. 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.

# **1.** Does the company have a plan to assess, reduce or mitigate its emissions in its operations or organizations?

Yes – The Company has a plan to assess, reduce or mitigate its emissions in our operations or organization - Please summarize in response text box.

No – The Company does not have a plan to assess and reduce or mitigate emissions in our operations or organizations – Please describe why not in the response text box.

Yes – The Group has a plan to assess, reduce or mitigate its emissions in its operations or organization.

WRBC, on behalf of the Group, has undertaken a strategic assessment of its most important environmental, social and governance (ESG) issues for further consideration, and compiled its first sustainability report in 2019 for 2018, <u>https://www.berkley.com/about-us/corporate-responsibility</u>, as a starting point for its journey. A updated sustainability report was published in 2020 for 2019, <u>https://s22.q4cdn.com/912518152/files/doc\_financials/2019/ar/WR-Berkley-Sustainability-Report-Full-2019-Final.pdf</u>, and WRBC plans to update its sustainability report on a regular basis, as necessary. In addition, in early 2019, WRBC established an ESG Management Committee to periodically report to the WRBC Board. In 2020, the Committee was comprised of the President and Chief Executive Officer, Executive Vice President and Corporate Secretary, Executive Vice President and General Counsel, Executive Vice President with oversight of certain of the Company's operational activities, Executive Vice President and Chief Financial Officer, and Vice President – External Financial Communications. The Committee is responsible for the identification of key ESG issues and mapping of internal subject matter experts and content owners to each of these selected issues. It meets quarterly, or more frequently as necessary, to review ESG goals and progress. Specific emissions mitigation activities are summarized below:

# Recycling and Giving back:

All the Operating Units are engaged in various efforts to reduce their carbon footprint by supporting concepts to encourage new habits at work and at home, including the recycling of paper, bottles, Styrofoam, cans, cardboard, plastics and ink cartridges. Certain Operating Units may also engage in other specific activities that use recycling to serve their communities, such as:

- An off-site shredding process that allows paper to be baled and sent to pulping mills for recycling where contents are de-inked and turned into new products.
- Drop off bins for employees to donate such things as eyeglasses, batteries, and old cell phones which are then donated to organizations that are able to re-use the recycled items. Similarly, office supplies are recycled and then donated to an organization that provides low cost/free supplies to teachers who have a need for classroom items.
- Used computer equipment is recycled when possible or refurbished and donated to local charitable organizations that need computer equipment.

# Technology and Communications:

Through technology, the Operating Units endeavor to reduce their carbon footprint in various ways as described below. These actions also indirectly reduce associated carbon footprint by reducing the number of cars on the road to pick up and deliver the paper/mail, ship printer supplies and toner, and provide maintenance on printers.

- Overall reliance on printing is discouraged by using a 'follow your printing' software rather than having a printer in each office, reducing both the number of printers within a building and the associated use of paper products, storage and mailing. The pandemic also required less reliance on printers with remote printing, and the Group will encourage this new habit going forward.
- Technology provides access to documents through electronic portals and eliminates document exchange in paper. This also reduces the need for storage space for document retention purposes.
- Marketing, loss control and other communications to customers and business partners are also sent out in electronic format.
- Payments for various transactions, including claimants have been converted from paper checks to electronic payments.
- Policyholders are encouraged to pay on line and invoices for insureds and vendors are generated through emails.

- Through electronic communications, Operating Units reduce their need to travel and now have an alternate way to communicate visually with their customers and industry peers through the use of WebEx/Zoom meetings.
- Operating Units are leveraging the benefit of virtual technology for loss control and risk assessment of existing and new business, loss control service visits and training sessions.
- Internal meeting materials are delivered electronically and employees bring their laptops with them to view the materials or materials are viewed on whiteboards and digital projectors installed in meeting rooms.
- When paper is used for work, Operating Units are encouraged to use paper that is certified FSC or SFI for sustainable forestry practices. As states permit more filing requirements to be submitted electronically, this also allows the Operating Units to reduce their use of paper along with associated environmental impacts and costs.
- Working Remote Some Operating Units provide employees with one Green day per week to
  work remotely to reduce vehicle emission and office energy use. As a result of the pandemic,
  Operating Units had to revamp their processes for all employees to be able to work remotely
  and now are re-evaluating whether employees need to be in the office 5 days per week.
  Additionally, the pandemic was a catalyst to drive all Operating Units to pursue greater use of
  technology thereby reducing our overall carbon footprint.
- In 2020, the Berkley One personal lines Operating Unit began placing a tool in the hands of its homeowner insureds, enabling them to conduct their own property survey for valuation and loss control purposes. This has reduced the need for in-house appraisers or contracted appraisers to drive to the insured homes to perform in-person inspections. There is similarly less driving needed by claims adjusters, as this Operating Unit utilizes technology for property claimants that enables them to photograph the damage and send the photos to a vendor to obtain an estimate for repairs, eliminating the need for the claims adjuster to perform an inperson assessment. This Operating Unit has also carried forward its learnings from the pandemic to increase use of WebEx and other forms of virtual interactions to other areas of its operations, further reducing travel emissions.

## Buildings, Office Space and Use of Environmentally-Friendly Products:

Many of our Operating Units occupy leased office space in major cities throughout the U.S. The Group continuously looks for ways to consolidate office space among businesses within the same city and use Green measures as a factor in selecting the building to lease. Such factors are:

- buildings rated as Energy Star certified and LEED certifications;
- where building management employs green practices, including use of green cleaning products;
- lighting LED and using sensors to control;
- heat and cooling and using sensors to control;
- landscape and using sensors to control water use;
- location building conveniently near public transportation;
- water consumption is further monitored in other areas of the building such as bathrooms; and

• filtration or reverse osmosis systems promoting the use of thermos/hard bottles and reducing the use of disposable plastic water bottles.

For owned buildings, the Group's building management focuses on the same Green measures listed above. When it comes to the physical structure of the building, the Group will look at alternatives to protect against storms and reduce solar energy. For example, one Operating Unit replaced the original roof membrane with thermoplastic polyolefin TPO membrane to reduce solar impact from the sun and protect against storms. Over time, the Group has moved individual data centers to centralized locations reducing some of the redundant power and utility usage as well as required office space.

# Transportation and Travel:

The Operating Units encourage the use of public transportation through incentive programs – including subsidizing the cost of public transportation and by considering the location of its offices near public transportation. In addition, Operating Units also encourage carpooling, provide electric charging stations for employees using electric vehicles and safe places to store bicycles. Additionally, Operating Units continue to look for ways to reduce the number of fleet vehicles and the associated overall reduction in miles driven, fuel emissions and costs. For Operating Units in the U.S., the Group is transitioning its entire fleet of vehicles to hybrid sedans and SUVs beginning in 2021. Starting in 2019, the Group increased its use of WebEx/Zoom platforms in place of traveling to meetings.

Additionally, Operating Units, when able, are converting their inspections and premium audits from physical onsite inspections and audits to virtual inspections and audits. This reduces the need for field auditors to travel to insured locations to conduct these audits.

## **Employee Engagement**

Some Operating Units have formed an Environment Committee to increase awareness of the need to reduce the use of utilities as well as other items such as paper and plastic, and sharing such information via a periodic employee newsletter.

2. Does the company have a climate change policy with respect to risk management and investment management? If yes, please summarize. If no, how do you account for climate change in your risk management?

Yes – the company has a climate change policy with respect to risk management and investment management – please summarize in the response text box.

No – The Company does not have a climate change policy with respect to risk management and investment management – Please describe how you account for climate change in your risk management in response text box or why you do not account for climate change in your risk management in the response text box. Yes, the Group's policy on risk management and investment management as regards climate change is summarized as:

- WRBC sets an overall appetite level for catastrophe risk, and monitors the Group against this regularly.
- 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 the latest scientific reports regarding the potential impacts of climate change on insured losses, and summarizes these for the WRBCERM committee (the "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 WRBCInvestment 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 vendor, 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 macrolevel, for assessing the Group's overall exposures, and at a microlevel, for assessing an individual 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 the latest published articles and reports on climate change to WRBC senior management and the Operating Units.

- The Group has extensive 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 ensures that the financial consequences if this were to occur are within the Group's overall risk appetite. There are no exclusions specific to climate risk in the reinsurance that protects the Group.
- WRBC restricts its investments in municipal bonds in areas that 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.

When considering real estate investments, the Investment Department considers the exposure to catastrophe at that location. When there is a risk of catastrophe, the ERM Department works with the Investment Department to assess that risk, and this assessment is taken into consideration when determining whether to proceed with the investment.

WRBC's Board of Directors believes that risk oversight, including risks arising from ESG issues, is a key responsibility of the entire Board of Directors. It is a critical responsibility of WRBC's President and Chief Executive Officer and every other senior officer of WRBC and the Group. The Board of Directors oversees WRBC management's assessment of business risks relating to WRBC's insurance operations and investment portfolio. WRBC 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.

3. Describe your company's process for identifying climate change-related risks and assessing the degree that they could affect your business, including financial implications. Yes – The company has a process for identifying climate change-related risks and assessing the degree that it could affect our business including financial implications - Please summarize in response text box.

No - The company does not have a process for identifying climate change-related risks and assessing the degree that it could affect our business including financial implications – Please describe why not in response text box.

Yes, 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 8.

Periodically, the ERM Department produces a report based on pertinent scientific literature that seeks to identify the potential for climate change impacts to the Group over defined short, medium and longterm time periods. This report also identifies specific monitoring and / or actions that the Group may wish to consider implementing to manage the potential financial implications of climate risk. The report is shared with the ERM Committee, and relevant extracts are shared more widely as appropriate.

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 largely disappear. For example, there is no upward trend in the incidence or the intensity of the actual "perils" for tropical cyclone (hurricane, typhoon) or severe tornadoes. To illustrate this point, the chart below shows that over the period 1980 to 2018, US economic losses from natural catastrophes do not display a discernible trend when normalized using local GDP.



Natural Catastrophe Events in the U.S.A., 1980 - 2018

(Overall losses: nominal, inflation adjusted, and normalized)

Source: © 2019 Munich Re, Geo Risks Research, NatCatSERVICE. As of March 2019.

https://www.iii.org/fact-statistic/facts-statistics-us-catastrophes (copy and paste hyperlink to browser to open page, then scroll to "Loss Events in the U.S., 1980-2018 (Overall and insured losses)"; note that geophysical events account for a very small proportion of the events, as can be seen on the same URL in the table "Loss Events in the U.S., 1980-2018 (Number of relevant events by peril)".)

Similar results are seen for region-specific weather-related losses normalized for exposure and societal changes using a number of different methodologies; for example, population and wealth per head of population or number of housing units and wealth per household. Essentially, 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.

PCS catastrophe losses for commercial lines are available from 1998 onwards. The chart below shows US Commercial Lines losses for PCS catastrophe events for severe convective storm (SCS: tornado, hail, straight line wind), flood (other than storm surge) and winter storms. Earthquake and terrorism have no relationship to climate change, and the relative infrequency of hurricane events makes it inappropriate to include them in a chart exhibiting just two decades of data. Wildfire is discussed later in this section. The losses have been adjusted by state level GDP to normalize the losses for changes in exposures and for societal changes. With the addition of 2020 into the dataset there is a slight upward trend.



## https://www5.iso.com/pcs/app/start.do

Source: ISO, Property Claims Services (PCS), PCS US Catastrophes (SCS, Winterstorm, Flood) – Comm. Lines Insured losses

## 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 2020, there is virtually no trend in the number of landfalling hurricanes, as illustrated in the chart below.

#### US Hurricane Landfalls, 1950-2020



Exhibit 63: United States Hurricane & Major Hurricane Landfalls

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

<u>http://thoughtleadership.aon.com/Documents/20210125-if-annual-cat-report.pdf</u> (copy and paste into browser).

2020 was a very active North Atlantic hurricane season, with 30 named storms and 12 land-falling storms in the continental United States. Six of the land-falling storms were hurricanes. The strongest hurricane was Laura, which made landfall in Louisiana as a category 4 hurricane, and caused an estimated \$18b of economic damage.

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 cost for 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. However, at present flood appears to be affected more by socio-economic changes, such as the increase in paved areas that results from urbanization, than by changes in climate.

If one considers flood losses excluding "storm surge" associated with hurricanes (and post-tropical cyclones like Sandy), then flood losses are actually a decreasing proportion of the US GDP.

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

for years 1929 to 2014 for years 2015 to 2020

## Drought

Within the past century, the most significant drought event was the "dust bowl" of the 1930's. 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 2020. 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 16<sup>th</sup> century there was a drought significantly more severe than anything subsequently experienced in the USA. 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). ("North American Drought: A Paleo Perspective", Created by the Staff of NOAA Paleoclimatology Program, November 12, 2003)

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.





#### 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 2013, commercial losses accounted for less than 5% of the total PCS wildfire losses. Over 2014-2020, the commercial lines share increased to above 20%. Over 90% of these commercial wildfire losses for the period 1998 through 2020 were in California. The total value of buildings exposed to wildfire in California has increased in recent decades, driving up the cost of wildfires. In California the total number of housing units in all areas increased by 22.3% from 1990 to 2010 (*2010 Census bureau*), while those in the Wildland Urban Interface in California increased 33.8% over 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 July 2021 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.

## Liquidity

WRBC does not maintain a standalone liquidity plan or policy, however, the Investment Policy Statement states that portfolio holdings must be sufficiently liquid to ensure timely payments of all obligations without material impact on market values. This is accomplished in several ways:

- a. First, WRBCtargets to maintain a minimum of 5% of the Company's assets (including the WRBC parent account) in cash equivalents and short-term securities.
- b. Second, WRBC maintains a laddered maturity schedule of high-quality fixed income (overall portfolio average rating of AA-) such that a significant portion matures each year.
- c. Third, interest income generated by the portfolio, in addition to cashflows from operations, provides an additional cushion should claims payments be unusually high.
- d. Fourth WRBC maintains significant liquidity at the WRBC parent account which can be contributed to the Company, if necessary.

Liquidity stress tests are performed with the assistance of the WRBC's risk management system, the Aladdin System. Aladdin is able to split the Group's 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 ensure it achieves an optimal balance. These reports are run quarterly or on an ad hoc basis if necessary.

The above-described combination of operating cashflows and approximately 5% in cash equivalents and short-term securities should address any immediate need for liquidity. WRBC also has the ability to raise additional capital from public and private markets, if needed. The outstanding debt issued by WRBC does not have any liquidity or rating agency covenants that could cause any outstanding debt issuance to be called early by investors. Furthermore, the Group's assumed reinsurance business, in general, does not have any rating agency downgrade triggers which could materially impact our liquidity position. WRBC also has a \$20 million credit facility with Wells Fargo Bank allowing for the issuance of standby letters of credit on behalf of the Company and its subsidiaries.

4. Summarize the current or anticipated risks that climate change poses to your company. Explain the ways that these risks could affect your business. Include identification of the geographical areas affected by these risks.

Yes – The company has identified current or anticipated risks that climate change poses to our company – Explain the ways that these risks could affect your business – Include identification of the geographical areas affected by these risks – Please summarize in the response text box.

No – The company has not identified current or anticipated risks that climate change will pose to our company – Please describe why not in the response text box.

Yes, the Group has identified potential risks that climate change poses to the US insurance industry, and has considered how each of these risks might impact its own business.

Please note that approximately 20% of the Group's total premiums are for Property insurance and the remaining 80% of its premiums are primarily for liability lines of insurance. Perils considered when assessing the potential risks posed by climate change include:

- Hurricane and tropical storm
- Tornado
- Flood
- Drought
- Wildfire

### Hurricane

North Atlantic hurricanes and tropical storms typically impact states between Texas and Maine. The Group identifies and models its hurricane risks in 23 states that could 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.

As noted in response to Question 3 above, over the period from 1880 onwards there is a slight downward trend in the number of landfalling tropical storms and hurricanes. Some of the weather and climate conditions that make it easier for hurricanes to form in the Atlantic Basin also appear to impair the likelihood of landfall. For example, hurricanes that form further from land are less likely to maintain their structure long enough to make landfall as damaging events. As mentioned in response to Question 3 above, Knutson et al proposed that in the long-term global warming will cause potential shifts of hurricane activities towards less frequent and more severe events. However, the same science that provides this long-term view also indicates it will be many decades before we see these changes. Also, other studies indicate that very different trends can be produced using different statistical relationships and temperature models.

While warmer seas may cause hurricanes to be more intense, hurricanes absorb more water vapor in a warmer atmosphere, causing greater rainfall. In 2017, Hurricane Harvey lingered over Houston as a tropical storm with many areas experiencing 40 inches of rainfall over a 4-day period. It is theorized that the forward speed of hurricanes may be slower in a warmer atmosphere, which may concentrate the effects of wind and / or rainfall in a smaller area. In 2019, Hurricane Dorian stalled over the Bahamas for more than 24 hours as a Category 4-5 Hurricane.

A 2015 paper that discusses the short term (three to five years) impact of climate change on insured losses observes that "...climate change has had no measurable effect on the North Atlantic hurricanes that drive Cat Market losses. Loss levels have gone up over time primarily due to increases in the value of building stock standing in the way of hurricanes." These are the conclusions of the most recent report of the Intergovernmental Panel on Climate Change. [Climate Change and Hurricane Loss: Perspectives for Investors by Karen Clark and John Lummis June 2015] The IPCC, Technical Support Unit Working Group co-chaired by Thomas F. Stocker and Dahe Qin, note in their CLIMATE CHANGE 2013: *The Physical Science Basis:* Frequently Asked Questions that "Over periods of a century or more, evidence suggests slight decreases in the frequency of tropical cyclones making landfall in the North Atlantic and the South Pacific, once uncertainties in observing methods have been considered. "

The Group closely monitors the forecast numbers of tropical storms and hurricanes for each season, investigates all available vendor models, and tests alternative assumptions on the potential frequency

and severity of such events. Each individual property location is assessed for catastropherisk, with particular focus on those nearest the coast and / or near river estuaries. 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.

#### Tornado

As noted in response to Question 3 above, over the period from 1950 onwards the number of EF-3 to EF-5 tornadoes is not increasing. In older calendar years there was significant under-reporting of the weaker categories of tornado, and from an insurance perspective, category EF-3 to EF-5 cause the majority of meaningful insurance losses. When tornado insured losses are normalized for changes in exposures (for example, the number and values of the buildings and contents, often in areas that were previously agricultural land), these too show no increasing trend.

The Group models tornado losses in every state within the US, and has also revalued the tornadoes reported by the ISO Property Claims Service (PCS) from 1950 onwards to allow for changes in exposure as an additional data source.

### Flood

As noted in response to Question 3 above, flood losses arising from river and surface water are decreasing as a percentage of GDP. The majority of the property policies issued by the Group exclude losses covered by flood. In those policies that do cover flood, many have flood sublimits.

#### **Drought & Wildfire**

Drought and wildfire are strongly connected. One study looking at data through to 2002 indicated that fully half the variability in wildfire (measured by acres burned) arises as a result of drought conditions ("Fire and Drought", The Thoreau Institute, December 31, 2006).

As noted in response to Question 3 above, the current period of drought is not as severe as periods seen in the past. Furthermore, there was a drought in the latter part of the 16<sup>th</sup> century that was far more severe than any subsequent drought in North America. During the last century, it is apparent that the El Nino / Southern Oscillation (ENSO) have a significant impact on the US 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 US.

The Group does not write crop multi-peril business which could be significantly impacted by drought.

5. Has the company considered the impact of climate change on its investment portfolio? Has it altered its investment strategy in response to these considerations? If so, please summarize steps you have taken.

Yes – the company has considered the impact of climate change on its investment portfolio – Please summarize in the response text box.

No – The company has not considered the impact of climate change on its investment portfolio – Please describe why not in the response text box. Yes – The company has altered its investment strategy in response to these considerations – Please summarize steps you have taken in the response text box. No – The company has not altered its investment strategy in response to these considerations – Please describe why not in response text box.

Yes, the Group has considered the impact of climate change on its investment portfolio, and yes, the Group has altered its investment strategy in response to those considerations.

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, improves the Group's performance over the long term, bringing benefits for many years to come – with some important short-term benefits for our investors, stakeholders and insureds as well.

ESG Criteria addressed on WRBC's Exclusion list: **Environmental**: Companies relying on coal-based business models, **Social**: Sovereign bonds from countries with severe human rights violations, or companies associated with or producing banned weapons, and **Governance**: Countries identified by the U.S. Treasury Department's Office of Foreign Asset Controls (OFAC).

The transition to a lower-carbon economy currently underway provides a good example of how avoiding ESG risks makes economic sense. Preparing for that global transition is part of our strategy to avoid holding what are expected to become "stranded assets."

WRBC is positioning itself and its policyholders to thrive in a low-emissions economy, and to support and accelerate the transition. To this end, it is reviewing its utility bonds where coal is the power source, and it has little direct oil and gas private equity investments.

#### WRBC also aims to:

- Target investments that contribute to a low-carbon economy by investing in infrastructure renewables and "green bonds" (also known as sustainable finance);
- Avoid investments in companies that generate 30% or more of their revenues from thermal coal mining or that use at least 30% thermal coal for power generation;
- Align its portfolio to contribute to a low-carbon economy; and,
- Increase the share of properties in its portfolio that have an environmental or sustainability certification (i.e. LEED-designated buildings).

WRBC plans to avoid investments in companies that generate over 30% of their revenue from thermal coal mining. For example, in the past several years, WRBC has limited its investments in utilities (both debt and equity) that utilize coal and shifted more to natural gas fired facilities as natural gas is more efficient due to its low cost and clean-burning nature while regulatory costs of coal have increased.

In the municipal bond sector, WRBC has continued to minimize its investments in certain states as a result of catastrophe concerns. In the municipal sector it is also very concerned with the supply of water in states like Nevada so it remains underweight there as well. WRBC also made the decision not to buy so-called "cat bonds" because of their heightened risk and the potential impact on both sides of the balance sheet from an ERM standpoint (such potential clashes are discussed at least quarterly at the ERM Committee meeting with representatives from both the Investment Department and the ERM Department present). In the private equity portfolio, WRBC has made an energy investment that utilizes steam assisted gravity drainage (powered by natural gas) rather than a similar investment that utilizes mining for extraction as a result of the additional energy (and therefore cost) required for the mining venture. In the asset-backed securities markets WRBC has made an investment in securitized wind turbines in the belief that they will generate sufficient revenue to service their debt with ample margins and also to provide a level of diversification from other asset-backed investments. WRBC has also investigated several wind and solar equity investments on the belief that they will be strong investments in the future, but to date have not invested in this area for various reasons.

In theory, a major natural catastrophe could place financial strain on local and state municipalities, leading to a default or credit downgrade of its debt. WRBC restricts its investments in municipal bonds in areas that are most subject to catastrophic loss. The ERM and Investment Departments coordinate to monitor the Group exposure to municipal bonds in those states that are most likely to experience significant catastrophes, considering the WRBC insurance risk profile.

WRBC tracks trends in certain items such as changes in the Group's underwriting and investment exposures to the companies that are the most significant greenhouse gas (GHG) producers.

6. Summarize steps the company has taken to encourage policyholders to reduce the losses caused by climate change-influenced events.

Yes – The company has taken steps to encourage policyholders to reduce the losses caused by climate change-influence events – Please summarize in response text box. No – The company has not taken steps to encourage policyholders to reduce the losses caused by climate change-influenced events – Please describe why not in the response text box.

Yes – The Group has taken steps to encourage policyholders to reduce the losses caused by climate change-influence events.

#### **Risk Management and Loss Control:**

The Operating Units regularly update and offer policyholders and agent 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 hail storms, and providing 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 the carbon footprint.

Loss Control experts at the Operating Units, provide the following, 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.

The Operating Units have also taken steps to encourage policyholders to reduce the losses caused by climate change-influenced events. One Operating Unit created a new product for 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 US 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 assisted over 34 policyholders develop more than 3,500 acres of wetlands and over 44 miles of streams.

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

## **Personal Lines**

The Berkley One personal lines Operating Unit believes 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. During the East Troublesome Fire in October 2020, the response activities from this provider significantly contributed to saving a home from damage, proving the concept of loss mitigation. Also in 2020, Berkley One's risk management services

began to 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 for loss mitigation, and has seen increased utilization of an additional coverage that reimburses post-loss purchases of loss mitigation devices. Several homeowners' insureds have taken advantage of that coverage, installing loss mitigation devices such as water shut-off devices, generators, back-up power for sump pumps and alarm systems. The Operating Unit 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. This Operating Unit 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 Green houses and storm protective building materials.

## **D&O** Coverage

One of the Group's Operating Units writing D&O and related lines (third party coverages) for publicly traded and privately held entities focuses on trying to calibrate the Operating Unit's capacity, terms, and pricing to account for the many risks affecting D&O liability, including its insureds' posture relative to climate change issues, which poses a direct and obvious exposure to its target customers, their balance sheets, cash flows, revenues, earnings, equity and debt pricing, and reputations, and therefore, to the Operating Unit's book of business as well.

The underwriting process includes review of available information regarding the operational, financial, and governance risks of its current or proposed insureds to climate change related matters. The Operating Unit probes for compliance with applicable environmental regulatory requirements, and resilience to environmental and climate change risks as to its customers' property, plant, equipment, supply chain, intermediate and end markets, etc.

Often the Operating Unit is able to meet remotely, or, (pre-COVID) in-person, with its customers' management teams, either one-on-one or together with peers in D&O group meetings, wherein the Operating Unit is able to ask questions about the insureds' response to climate change, development of and execution on ESG initiatives and the like. In the course of the underwriting process, the Operating Unit is able to demonstrate to insureds' that this is a top-of-mind issue of concern to D&O underwriters, and that terms, conditions, pricing, and capacity depend in part on how well or poorly the insured is addressing these issues.

The Operating Unit has also helped to provide D&O insurance capacity for several companies actively engaged in pursuing various renewable, sustainable business models intended to reduce GHG emissions, including in the Electric Vehicle space. It will avoid providing D&O capacity where the Operating Unit is not satisfied with the insured's ability or willingness to effectively address climate risks to their business.

The majority of this Operating Unit's total premium is comprised of publicly-traded companies, some of which are among the world's largest companies. By nature of their complex and sophisticated operations, they are typically heavily focused on risk management of climate change issues. Further, these companies are subject to mandatory reporting and disclosure requirements with respect to climate, such as the Securities and Exchange Commission and Environmental Protection Agency (or foreign equivalents), US GAAP or IFRS accounting standards, Sarbanes-Oxley, and many other federal, state, local, or foreign laws and regulations around climate change. And whether public or private, the ESG investing movement is acting as a direct and indirect allocator of capital based in part on any given company's response to climate change, GHG emissions, environmental, sustainability, and corporate social responsibility matters. The Operating Unit strives to ensure that the management teams and boards of its customers are well aware of the D&O liability via direct or derivative private lawsuits, or via governmental and regulatory inquiries, investigations, fines, and penalties, associated with failure to move forward on climate change in a conscientious manner.

The pressure to comply with these regulatory regimes, as well as to public opinion, arise from initiatives to create awareness among the public and institutional investors to compel companies to disclose environmental risk and impacts and to change their behavior to avoid future negative disclosure or reputational risk, and the Operating Unit, as a D&O underwriter, is a part of that incentive structure.

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.

While the Operating Units use their expertise to help their policyholders mitigate risk, as well as their financial and environmental impacts as outlined above, the Operating Units have 80% of their writings in liability lines of insurance. There are fewer risk mitigation efforts that can be applied to the specific liability risks these Operating Units' liability insureds encounter. That said, the Operating Units do provide risk management and loss control information and services for these insureds, including information on such issues their insureds may have with an environmental impact on their carbon footprint.

# 7. Discuss steps, if any, the company has taken to engage key constituencies on the topic of climate change.

Yes - The company has taken steps to engage key constituencies on the topic of climate change – Please summarize in the response text box.

No – The company has not taken steps to engage key constituencies on the topic of climate change – Please describe why not in the response text box.

Yes, the Group has taken steps to engage key constituencies on the topic of climate change.

The Group communicates through trade organizations to the NAIC and to members of Congress on overall issues that may arise, such as changes to FEMA to encourage actuarially sound rates, building codes, safety and storm preparedness etc. One Operating Unit is an active participant in the Inland Marine Underwriters Association ("IMUA"), and sit on panels at industry events promoting loss control regarding weather related events.

Another Operating Unit has supported its largest client with their Green Step Cities Program. The program recognizes municipalities in Minnesota that establish and track various programs around reducing emissions in their day to day operations.

Another Operating Unit, with the assistance of producers, engages insureds in activities such as reducing their carbon footprint and working on solutions to provide Green coverages. Marketing material about Green coverages and guidance about risk mitigation is directed at customers but an equal amount of it is agent facing (and made available electronically via webcast or on its website, as opposed to paper form). This Operating Unit looks to its agency plant and its service providers to share in its commitment to educating the customer about risk management before and after a loss.

Another Operating Unit actively communicates with Texas legislators and regulators through its trade organization, the Insurance Council of Texas, on overall issues that may arise, such as advocating for actuarially sound rates in the Texas Windstorm Insurance Association to ensure the risk pool's solvency in the event of catastrophic windstorms.

Another Operating Unit actively educates its producer base on the particulars of its Green coverage endorsements and works with its agents on loss control issues affecting their shared clients. Risk mitigation publications created by this Operating Unit are agent-facing as well as customerfacing. Employees of the Operating Unit have taken advantage of state- and industry-sponsored webinars around climate change, including a series presented by the New York Department of Financial Services on climate change and a wildfire symposium presented by a major broker.

Operating Units have participated in industry-specific discussions via local, regional, national, and international panels on D&O, which typically include one or more segments on D&O risk arising from climate change, claim scenario discussions, and general industry learnings on the topic. Candid discussions around climate change risk with brokers who place D&O insurance are also a part of the business process.

In 2020, WRBC reached out to many of its stockholders, representing 69% of its outstanding shares not held by management. WRBC virtually met, spoke to or corresponded with stockholders representing 50% of its outstanding shares not held by management, including several who declined meetings. Much of the outreach discussion centered on environmental and social issues, including climate risk and human capital management. The predominant message received from this outreach was that, in general, WRBC investors appreciate its responsiveness to emerging issues. These topics are discussed in our Sustainability Reports (links provided in response to Question 1 above).

8. Describe actions the company is taking to manage the risks climate change poses to your business including, in general terms, the use of computer modeling.
Yes – The company is taking actions to manage the risks climate change poses to the business – Please summarize what actions the company is taking and in general terms the use if any of computer modeling in response text box.
No – The company is not taking actions to manage the risks climate change poses to the business – Please describe why not in response text box.

Yes, the Group takes various actions to manage the risks climate change poses to the business as previously described in the responses above 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 catastropherisk.
- 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 hurricane. 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 WRBCERM 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 our Enterprise Risk Management monthly update report.