MemorialCare

SB 261 Report - MemorialCare

prepared by: ecom-energy

Sustainability Compliance | Date: December 2025

ECOM-ENERGY, INC.

714-485-4122 | info@ecom-energy.com | www.ecom-energy.com

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INTRODUCTION

MemorialCare is a nonprofit integrated health system based in Southern California that serves communities across Orange County and Los Angeles County. It was founded in 1950 and has since grown to include four hospitals, two medical groups, and a large network of outpatient centers and surgical facilities. The organization's mission is to improve the health and well-being of individuals, families, and communities through accessible, high-quality care. MemorialCare offers a full continuum of services, from preventive and primary care to advanced specialty and emergency care. Its vision centers on providing exceptional people, extraordinary care, and outstanding experiences for every patient, every time.

MemorialCare has committed to the White House–HHS Health Sector Climate Pledge, aligning with the goal of reducing emissions 50% by 2030 and achieving net zero by 2050. This commitment was formally recognized by the U.S. Department of Health and Human Services (HHS) on December 3, 2023, at the United Nations Climate Change Conference (COP28), where MemorialCare was named among more than 130 leading health systems advancing climate action. Prior to this, we enacted our Climate Health Initiative, to develop a full sustainability plan and complement our resilience planning, ensuring that MemorialCare can both mitigate emissions and adapt to the growing health impacts of climate change.

We recognize that climate change is not an abstract risk but an immediate challenge with real consequences for our patients, staff, and operations. It influences the reliability of utilities, the stability of supply chains, the frequency of infectious disease outbreaks, and the severity of natural disasters such as earthquakes and floods. These risks carry not only financial implications but also critical equity considerations, as vulnerable and underserved populations in our region are often the first and most severely affected by disruptions in healthcare access.

MemorialCare is committed to working with regulators, community partners, and peer institutions to drive systemic resilience. This includes active collaboration with local and county emergency management agencies, alignment with Centers for Medicare & Medicaid Services (CMS) and Joint Commission requirements, and readiness for California's emerging climate disclosure mandates. By integrating these requirements into our Emergency Operations Plans, we ensure continuity of care, protection of our staff, and transparency with our stakeholders.

This disclosure marks a step forward in our climate and resilience reporting journey. It highlights the financial exposures we face, ranging from seismic risks to pandemic surge costs, as well as the opportunities that can strengthen our system, such as investing in seismic retrofits, microgrids, and sustainable supply chain practices. By disclosing these risks and opportunities through a TCFD-aligned framework, we aim to build trust, demonstrate accountability.

2017
Corporate Energy Strategy with ecom-energy

Nov 2022
Climate Health Initiative - targets and objectives established

Sep '23
Sustainability Squad Launch

Jan 2023
MemorialCare Green Policy Effective

Mar '23
Children's Village MOB Solar Live

Nov '23
White House/HHS Health Sector Climate Pledge

Dec '23
Climate Resilience Plan

Jan 2024
- SB1383 Food Waste Compliance
- New Anesthesia Machines

Apr '24
Ongoing E-Waste and Recycling locations

Oct '24
E-Signature Implementation

July '24
Orange Coast Hospital LED upgrades

Aug '24
6 ASHE Energy to Care Awards earned

Dec '24
Scope 3 Inventory complete

Jul '25
Saddleback Memorial Hospital Fuel Cell Install Complete

May '25
Hartley Medical Building Solar Install Complete

Jan 2025
Solid Oxide Fuel Cell Groundbreaking Ceremony at Long Beach Memorial Hospital

Aug'25
20 ASHE Energy to Care and Sustained Performance Awards earned

ABOUT THIS REPORT

This report has been developed in alignment with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD), established in 2015 by the Financial Stability Board (FSB). TCFD provides a globally recognized framework for organizations to disclose climate-related risks and opportunities in a structured, transparent, and decision-useful way. Its recommendations are widely supported by regulators, investors, and businesses, and they form the foundation of emerging disclosure mandates such as California's SB 253 and SB 261, as well as the U.S. Securities and Exchange Commission's (SEC) proposed climate disclosure rule.

The following entities are covered in this report:

***Memorial Health Services - 951643381**

For MemorialCare, the TCFD framework offers a structured lens to evaluate how climate change and related hazards affect not only our physical operations but also our long-term strategy, financial planning, and community obligations. While traditional sustainability reporting often emphasizes an organization's impact on the environment, TCFD centers on how climate change impacts the organization which is a critical distinction for healthcare providers whose mission depends on resilience during crises.

Through this report, we disclose both acute physical risks (e.g., earthquakes, pandemics, IT outages, utility failures) and transition risks (e.g., regulatory compliance with SB 261, supply chain volatility, cybersecurity, and market expectations). We have also highlighted the financial exposures related to these risks, drawn from Hazard Vulnerability Assessments (HVAs), Emergency Operations Plans (EOPs), and industry benchmarks.

By structuring this disclosure under the TCFD's four pillars, we aim to enhance transparency, improve internal awareness, and strengthen decision-making across our system:

- **Governance:** Oversight structures for climate and emergency risks, including board-level accountability and hospital command systems.
- **Strategy:** The actual and potential impacts of material climate-related risks and opportunities on our business and communities.
- **Risk Management:** How MemorialCare identifies, assesses, and mitigates climate-related risks through HVAs, EOPs, and enterprise risk management.
- **Metrics and Targets:** The metrics and performance goals used to track progress, including HVA risk scores, disaster reserve funding, compliance readiness, and net zero targets.

*Tax ID number used in lieu of unreleased CARB identifier

GOVERNANCE

MemorialCare's climate and resilience governance is embedded at both the system and facility levels, ensuring compliance with regulatory requirements and alignment with community needs. The Board of Directors has ultimate accountability for oversight of climate-related risks and opportunities. The Senior Leadership Team reviews annual Hazard Vulnerability Assessments (HVAs), Emergency Operations Plans (EOPs), and system-wide continuity strategies to ensure climate risk is integrated into enterprise risk management and long-term planning.

Climate Health Initiative Steering Committee

The Climate Health Initiative Steering Committee (CHSC) is MemorialCare's primary management body for climate governance. Meeting bimonthly, the CHSC integrates perspectives across facilities, supply chain, clinical services, and operations to ensure climate risks and opportunities are managed consistently across the system. The CHSC reports to senior leadership and escalates key decisions to the Board for review.

Executive Leadership Oversight

- **John Somers**, **Vice President, Real Estate & Facilities**
- **Mary Leahy**, **Senior Vice President, Chief Human Resources Officer**
- **Shela Kaneshiro, CEO Saddleback Memorial Medical Center**
- **Annamarie Jones, COO MemorialCare Medical Foundation**
- **Kevin Torres**, **Vice President, Information Systems & Administration**
- **Tejas Bedakar, Executive Director Information Systems**
- **Richele Steele**, **Vice President, Public Relations & Communications**
- **Heather Reger, Director Internal Communications**
- **Grace Todd, Manage PR & Communications**
- **Brian Stuckman, Senior Vice President, Supply Chain & Ancillary Services**
- **Jessica Bonilla, Manager, Supply Chain ESG**
- **Tiffany Giang**, **Program Manager, Strategy & Business Integration**
- **Daira Ours, Master Lean Fellow, Sustainability Squad**
- **ecom-energy, energy and sustainability management partner**

Disaster Value Added Team (VAT)

In parallel, MemorialCare's corporate Disaster Value Added Team (VAT) provides system-wide governance of emergency preparedness and disaster response. The VAT ensures best practices are standardized across all facilities, maintaining compliance with the CMS Emergency Preparedness Rule (§482.15), Joint Commission emergency management standards, and California Title 22 regulations. Compliance under CMS §482.15 includes maintaining an all-hazards emergency plan, communication protocols, redundant power and water systems, and regular training and testing to ensure continuity of

patient care during disasters. The VAT works closely with the Corporate Hazard and Incident Command (CHIC) team to align these regulatory requirements with MemorialCare's broader climate resilience and operational readiness strategy.

Facility-Level Governance

Each hospital has an Emergency Management Coordinator designated to lead preparedness activities. Coordinators chair Emergency Preparedness Committees, multi-disciplinary groups including representatives from nursing, pharmacy, facilities, IT, and security. These committees are responsible for reviewing HVAs, updating EOPs, conducting drills, and allocating resources for resilience. Facility committees report into the Environment of Care Committees, which in turn escalate to system leadership.

Risk Management Governance

Management of climate-related risks and opportunities is a shared responsibility across the organization. CHSC supports the VAT in advancing long-term resilience and managing transition risks, while the VAT also ensures operational continuity during acute disruptions. MemorialCare's Enterprise Risk Management (ERM) framework integrates both physical and transition risks, enabling the organization to identify, prioritize, and mitigate top risks such as seismic events, cyber threats, and regulatory compliance.

Monitoring Climate Policy and Disclosure Requirements

MemorialCare monitors emerging climate policy at the state and federal levels. This includes California's climate disclosure mandates (SB 253/261), SEC rulemaking, and CMS/Joint Commission requirements. Updates are shared across CHSC and VAT to ensure both operational and disclosure compliance.

Climate Data Oversight

MemorialCare is committed to transparency and accuracy in climate-related reporting. Scope 1 and 2 emissions are tracked via applicable data sources, while Scope 3 data are compiled from both internal and external sources. All emissions data are managed within a robust software platform that supports consistency, accuracy, and auditability. Oversight of data quality is jointly managed by Executive Leadership, Strategy and Business Integration, Supply Chain, and ecom-energy. ecom-energy serves as the primary partner responsible for applying the Greenhouse Gas Protocol (GHG) requirements and ensuring that data gathering, review, and validation processes align with established assurance standards.

STRATEGY

How We Collaborate to Address Climate and Resilience Challenges

Climate-related hazards represent a systemic challenge that requires collaboration across healthcare, government, and community partners. For MemorialCare, resilience is not only about protecting hospital operations but also ensuring uninterrupted patient care and safeguarding the communities we serve.

Our Hazard Vulnerability Assessments (HVAs) and Emergency Operations Plans (EOPs) highlight the most material risks we face related to earthquakes, infectious disease outbreaks, IT and utility failures, and supply chain disruption and form the backbone of our climate resilience strategy

By aligning these assessments with CMS 482.15, Joint Commission standards, and California's SB 261, we ensure that our strategies meet both operational continuity and climate disclosure requirements.

MemorialCare's Climate Health Initiative included full energy and carbon accounting, and emissions measurement to support the development of a sustainability plan. As such, we are ahead of the growing push toward transparency in climate-related reporting, including California's climate disclosure laws and the SEC's proposed climate risk rule, which would require publicly traded companies to disclose their greenhouse gas emissions, climate-related risks, and governance processes for managing those risks. While the SEC requirements do not currently apply to MemorialCare as a nonprofit organization, tracking and aligning our approach with leading international practices ensures we remain prepared for a future in which investor-grade climate disclosures may become broadly expected across the healthcare sector.

Reducing Our Operational Footprint

We have committed to achieving net zero Scope 1 and 2 emissions by 2050. To achieve this, we are advancing a multi-pronged decarbonization strategy:

- Reducing direct emissions: Energy and operational efficiency improvements to lower reliance on natural gas and improve efficiency.
- Renewable energy: Installing on-site solar and fuel cells and evaluating viability of future sites.
- Supply chain engagement: Evaluating supply chain to identify high priority categories and develop long term sustainability strategies and reduction opportunities across key areas such as pharmaceuticals, med-surg supplies, and PPE.
- Resilience investments: Maintaining backup power, redundant water supply, and redundant IT systems to reduce vulnerabilities.

Investing in Renewables to Strengthen Energy Resilience

MemorialCare is investing in on-site renewable energy systems and cleaner, traditionally fueled generation systems to strengthen resilience, reduce dependence on the electric grid, and mitigate exposure to future carbon and utility-price volatility. These systems serve dual purposes: provide a layer of resiliency and advance our decarbonization targets. On-site generation also supports state and federal emission-reduction policies, such as California's Senate Bill 100, which requires 100 percent clean electricity by 2045, and federal initiatives under the Inflation Reduction Act that incentivize renewable energy and carbon reduction projects. By aligning with these policies, on-site systems help reduce long-term transition risk under tightening regulations and support broader decarbonization goals.

Scenario Planning and Forward-Looking Approach

MemorialCare has conducted dual scenario analyses to evaluate resilience under both low-warming (1.5–2°C) and high-warming (3–4°C) pathways. These scenarios integrate hazard risk data from our HVAs, financial modeling of uninsured losses, and compliance costs associated with state and federal regulation. MemorialCare's loss estimates were calculated by integrating HVA probability scores with financial data from audited statements, insurance coverage limits, and FEMA/HHS disaster cost benchmarks to model potential capital damage, business interruption, and surge-response costs under each risk scenario. Loss modeling integrates independent hazard damage estimates with audited asset values to quantify total exposure, then applies insurance coverage data to determine residual, uninsured risk. This ensures risk-reduction measures are prioritized based on true exposure rather than coverage limits. Quantitative loss estimates are provided only for the high-warming scenario, as physical damages under the low-warming pathway are substantially mitigated and primarily addressed through existing risk and transition plans.

- Low Warming (1.5–2°C, high policy response): In a coordinated global effort to limit warming to 1.5–2 °C, physical risks such as extreme heat, wildfire smoke, and utility failures are substantially reduced through stronger infrastructure standards and resilience planning. However, transition risks increase as climate policies and disclosure requirements expand under SB 253, SB 261, and forthcoming SEC rules. MemorialCare faces heightened regulatory and reporting demands, accelerated decarbonization timelines, and rising supply-chain expectations. Capital priorities shift toward renewable energy and efficiency improvements. These measures are structured to provide net economic and operational benefits in the near-term while reducing long-term exposure to catastrophic physical losses and strengthen financial stability. This will position the system for improved credit resilience and compliance in a low-carbon economy.
- High Warming (3–4°C, limited policy response): In a high-warming future marked by limited policy action, the system faces escalating physical disruption from earthquakes, flooding, wildfires, and utility failures. Estimated catastrophic asset losses total $265–355 million, and business-interruption losses range from $55–180 million, driven largely by earthquake impacts of $200–

250 million in structural and equipment damage and $20–40 million in lost revenue. Flooding and fire contribute a further $15–80 million in combined damage and downtime, while utility failures add $8–25 million in short-term operational losses. Together, these hazards produce system-wide financial exposure exceeding $320- 535 million in asset loss plus operational disruption, underscoring the importance of continued seismic retrofits, fire and flood mitigation, and investment in resilient on-site energy infrastructure.

The following section provides a campus level overview of climate and operational risk priorities across our medical centers. The summaries highlight three key elements for every site: identified risks, preparedness measures currently in place, and strategic implications for long-term resilience and sustainability. By reviewing each campus individually, we can clearly demonstrate how risk assessment informs investment in renewable energy, redundant utilities, and improved emergency management capabilities.

Long Beach Medical Center & Miller Children's & Women's Hospital Campuses (LBMC + MCWH)

HVA Findings	Earthquakes and flood risk; wildfire smoke and power outages; hazardous materials incidents.
Preparedness	Disaster Resource Center (DRC) designation, redundant power and medical gas, Hospital Incident Command System (HICS)-led surge planning
Strategic Implications	Seismic retrofits and renewable energy investment align both with climate resilience and disaster readiness.
Renewable Investments	Deployment of an efficient fuel cell and solar installations will lessen dependence on traditional grid electricity while providing cleaner, more reliable electricity.

Orange Coast Medical Center Campus (OCMC)

HVA Findings	Earthquakes/ Seismic disruption; utility failures; infectious disease surge; IT/cyber outages.
Preparedness	Integration with Orange County Multi-Agency Disaster Network (OCMAD), COOPs for all departments, cyber protection

Strategic Implications	Transition risks (SB 253/261 compliance, cyber insurance premiums) integrated with resilience investments in digital infrastructure and renewables.

Saddleback Medical Center Campus (SMC)

HVA Findings	Earthquakes/ Seismic disruption; followed by IT outages, pandemic, internal flooding
Preparedness	Preventive maintenance for life-safety utilities, county-wide drills, Environment of Care Program oversight
Strategic Implications	Climate-linked priorities include fire resilience, expanded water redundancy, and Scope 3 supplier engagement.
Renewable Investments	Installation of an on-site fuel cell provides reliable, low-carbon baseload electricity, strengthening Saddleback's energy resilience and reducing both emissions and exposure to volatile utility rates.

*Comprehensive risk assessment pg. 16

Physical Risk Assessment

Based on MemorialCare's Hazard Vulnerability Analyses, the most significant physical and operational risks stem from earthquakes, IT outages, infectious-disease events, and supply-chain disruptions.

EARTHQUAKES

Earthquakes represent the largest single exposure, with a 52% risk rating and the potential to cause $200–250 million in structural and equipment damage, along with $20–40 million in business interruption over several weeks of reduced service capacity.

IT & CYBER SECURITY

IT outages and cyber incidents carry a 40–50% likelihood and could result in $16.6–41.5 million in business interruption and $5–10 million in remediation costs, partially mitigated through redundant IT systems and cyber insurance coverage.

INFECTIOUS DISEASE

Infectious-disease events, including pandemics or severe influenza seasons, have a 32–33% probability and are modeled to generate $15–30 million in surge-response costs and elective-care revenue losses.

SUPPLY CHAIN

Supply-chain disruptions pose a 47% likelihood, translating into $11–46 million in annual procurement volatility and cost escalation.

To mitigate these risks, MemorialCare continues to advance seismic retrofit programs, strengthen IT redundancy and cybersecurity protocols, maintain strategic PPE and supply caches, and expand supplier memoranda of understanding with key vendors to ensure continuity of critical services during future disruptions.

Transition Risk Assessment

MemorialCare faces material transition risks associated with the shift to a lower-carbon, more regulated healthcare environment. Insurance and financial risks are also escalating, with earthquake and cyber coverage premiums projected to increase 8–12 % annually. On the supply-chain side, increasing regulatory and market pressure to decarbonize pharmaceutical, medical-surgical, and PPE vendors is projected to raise procurement costs by $5–10 million annually. These costs reflect supplier investments in low-carbon manufacturing, transportation, and packaging, which are expected to flow through to healthcare purchasers. Given that these categories account for 83% of MemorialCare's Scope 3 emissions, the organization is proactively engaging suppliers through its GPO network to align decarbonization efforts with long-term cost management and emissions-reduction goals.

At the same time, proactive investments in renewable energy and on-site generation systems such as solar arrays and fuel cells, help reduce long-term exposure to transition risk by lowering operational emissions and costs, improving energy independence, and aligning MemorialCare's operations with emerging regulatory requirements and strengthening energy resilience.

Operational Growth and Future Energy Demand

MemorialCare anticipates moderate facility expansion across its hospitals and outpatient sites, increasing total square footage by approximately three percent in the next few years. These expansions are integrated into our energy and emissions modeling to account for higher utility consumption, space conditioning needs, and equipment loads. At the same time, a modest reduction in total square footage is expected due to the planned downsizing of select facilities. For example, the corporate campus, "Shared Services", underwent a focus on hybrid work which allowed for a downsizing in the campus building usage. 1 of the 3 campus buildings has been decommissioned to account for a reduced onsite workforce, reducing energy demand, usage, emissions, and operating costs.

Energy & Sustainability Achievements

MemorialCare has seen strong growth in multiple energy and sustainability areas of the system. All new construction projects are designed to meet or exceed Title 24 energy efficiency standards and will incorporate on site renewable generation where feasible and evaluate electrified systems. Next, the Children's Village Medical Office Building is LEED Gold certified, to add to the list of over ten Energy Star certification eligible buildings across the portfolio: demonstrating commitment to efficiency and operational improvements. Additionally, the Shared Services campus currently operates with rooftop solar PV systems on 2 of the 3 roofs and 3 outdoor Tesla battery storage systems to feed the 3 campus buildings. Lastly, MemorialCare implemented a network of over 80 EV Charging ports across its facilities which supports fleet electrification and employee adoption of zero emission vehicles.

RISK MANAGEMENT

Hazard Vulnerability Assessment framework

MemorialCare integrates climate-related and emergency preparedness risks into its broader HVA framework, which identifies, assesses, prioritizes, and mitigates risks that could significantly impact our ability to deliver patient care. The framework aligns with regulatory requirements including CMS §482.15, Joint Commission standards, and California Title 22 for water system health and safety, and incorporates findings from our EOPs. In accordance with CDPH guidance and the California Plumbing Code (Title 24, Part 5, Section 615.4.1), MemorialCare facilities will maintain on-site water storage systems designed to sustain operations for a minimum of 72 hours during utility disruptions. Materiality within the HVA is determined based on the potential for a risk to disrupt healthcare operations, jeopardize patient safety, or create significant financial exposure.

Identification and assessment

Each year, facility-level Emergency Preparedness Committees conduct HVAs that score the probability and severity of climate-related and operational hazards such as earthquakes, IT outages, infectious disease outbreaks, and supply chain disruptions. These results are aggregated at the system level and reviewed by the Emergency Management Coordinator and senior leadership. Climate-related risks are categorized by likelihood, impact, and time horizon (short-, medium-, and long-term) to ensure both acute disruptions and emerging risks are captured.

Oversight and accountability

Responsibility for risk management is embedded throughout MemorialCare's governance structure. At the facility level, Emergency Preparedness Committees manage risk identification and mitigation planning. At the system level, the corporate Disaster Value Added Team (VAT) provides oversight, ensuring consistency across hospitals and integration with enterprise risk priorities. Findings are escalated to the Board of Directors and senior leadership, who provide final oversight and accountability for enterprise-level risks.

Mitigation and response

MemorialCare employs a comprehensive, system-wide approach to mitigate climate-related and operational risks identified through its Hazard Vulnerability Analysis (HVA) and 2024 Climate Resilience Plan. As part of the *Climate Health Initiative*, the organization integrates mitigation, adaptation, and emergency management into daily operations and long-term capital planning.

EARTHQUAKES

Earthquakes remain MemorialCare's most significant physical risk, with a modeled 52 % likelihood and the potential to cause $200–250 million in asset damage and $20–40 million in business-interruption losses. In response, the system has prioritized seismic retrofits across its hospitals and ambulatory facilities, ensuring compliance with SB 1953- California Hospital Seismic Safety Act, 1994. Facilities teams coordinate annual structural assessments and invest in redundant power such as backup generator systems, water, and communications systems to sustain patient care during a three-to-six-month recovery window.

EXTREME HEAT & UTILITIES

To counter risks from extreme heat and utility disruptions, MemorialCare aims to maintain 96–120 hours of emergency power and water capacity per site and is further expanding on-site generation and renewable energy integration. Current resilience targets include:

- 80% renewable energy by 2030
- 10 % reduction in energy and water consumption
- 50 % emissions reduction by 2030 on the path to net-zero by 2050

These efforts directly mitigate exposure to electric-supply volatility and utility outages while advancing state decarbonization goals.

IT & CYBER SECURITY

Information-technology outages and cyber incidents carry an estimated 40–50% likelihood with a potential $16.6–41.5 million in financial impact, including short-term business interruption and $5–10 million in remediation costs. MemorialCare maintains redundant IT architecture, secondary data centers, and continuous network monitoring, supported by cyber insurance coverage to transfer residual financial risk. The organization also conducts annual tabletop exercises to test incident-response readiness and ensure business continuity.

INFECTIOUS DISEASE

Infectious-disease events, such as pandemics or severe influenza seasons, are modeled at a 32–33% probability with $15–30 million in potential surge-response costs and lost elective revenue. Mitigation measures include strategic PPE caches, infection-prevention protocols, surge staffing plans, and MOUs with key suppliers to ensure priority access to pharmaceuticals and medical equipment.

SUPPLY CHAIN

Supply-chain disruptions are assessed at a 47 % likelihood, with $11–46 million in potential annual procurement volatility and cost escalation based on MemorialCare's $424 million annual medical and surgical supply spend. These categories, together with medical supplies, pharmaceuticals and laboratory goods, account for approximately 83 % of MemorialCare's total Scope 3 emissions, underscoring their dual significance as both financial and transition risks. The Supply Chain and Sustainability teams oversee strategic partnerships with Owens & Minor, Henry Schein, Mckesson RX, Food Buy, Compass One, and Cardinal Lab, balancing national contracts with local vendor diversification and supplier ESG engagement to strengthen redundancy, reduce emissions intensity, and support community resilience in care delivery.

MemorialCare uses a layered financial-resilience strategy:

- Property, cyber, and business-interruption insurance to offset acute losses.
- A developing disaster reserve fund equivalent to roughly 90 days of operating expenses to cover uninsured events.
- Eligibility for FEMA Public Assistance and HHS Hospital Preparedness Program funding to reimburse 60–75 % of eligible post-disaster costs.

Operational preparedness is sustained through Hospital Incident Command System (HICS) activations, staff training, and system-wide emergency exercises. Leadership from Strategy, Facilities, Supply Chain, IT, Nursing, and HR participate in the Climate Health Initiative Steering Committee, embedding resilience accountability across departments. These activities reinforce MemorialCare's commitment to protecting patients, staff, and communities from the growing impacts of climate-related hazards.

Integration of climate risk

By embedding climate-related risks into our HVA framework, MemorialCare ensures that both physical risks (acute disasters and chronic stressors) and transition risks (regulatory, financial, and reputational) are addressed. These risks are not assessed in isolation but mapped against our strategic objectives, including decarbonization goals and net zero targets. This integrated approach allows MemorialCare to balance near-term emergency preparedness with long-term climate resilience and sustainability planning.

Top Entity Risks, Financial Exposure, and Mitigation

Risk	*Likelihood (HVA Score)*	*Potential Financial Exposure*	*Time Horizon*	*Mitigation / Response in Place*	*Mitigation / Response Potential Add*
Earthquake	High (52%)	$200–250M asset damage; $20–40M business interruption	Short to Long	SB1953 Seismic retrofits; earthquake insurance; HICS activation	Disaster reserve fund
IT Outage / Cyber Attack	High (40–50%)	$16.6-$41.5M business interruption (2-5 days); $5–10M remediation costs	Short	Cyber insurance; backup data centers; 24/7 monitoring	Redundant IT systems
Pandemic / Seasonal Influenza	Medium (32–33%)	$15–30M surge response costs; lost elective revenue	Short to Medium	Infection prevention protocols; surge staffing plans	PPE caches; MOUs with suppliers
Supply Chain Shortages	High (47%)	$11-$46M annual incremental cost/inefficiency (appx 20% of OPEX impacted 1-4 weeks)	Short to Medium	Strategic stockpiles: MOUs (pharma, oxygen, food); secure supply caches	On campus emergency storages
Utility Failure (Water/Power)	High (68%)	$8.3 -24.9M operational losses in extended outage (1-3 days)	Short	96–120 hours backup water & power; on-site generation	Microgrid, battery storage systems to become utility independent
Regulatory Compliance (SB 261, CMS, Joint Commission)	High (recurring)	$0.5-1M penalties for non-compliance	Short to Medium	Annual board review	Dedicated ESG reporting systems; ERM integration;
Flooding	Medium (25%)	$10-$50M asset damage, $8-$58M in business interruption (1-7 days)	Medium to Long	Flood insurance	Drainage upgrades, equipment elevations, emergency pumping vendors.
Fire	Medium-High (30%)	$5-$30M asset damage, $8-$58M in business interruption (1-7 days)	Short to Medium	Fire suppression, electrical/HVAC maintenance, drills and training, defensible space	Smoke filtration and air quality control, ember resistant retrofits, fire resistant plants

Time Horizons in Years: Short (0-3), Medium (3-10), Long (10+)

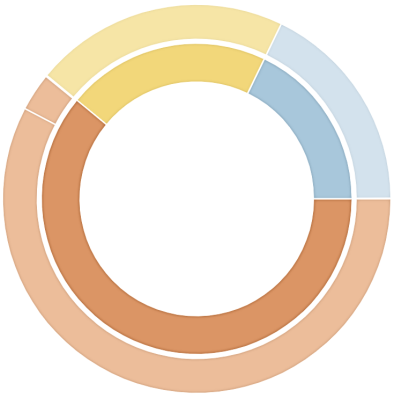
METRICS AND TARGETS

MemorialCare measures climate-related risks and opportunities through a set of clear, time-bound metrics that align with our commitment under the White House–HHS Health Sector Climate Pledge. These targets are supported by operational goals across energy, water, waste, and supply chain resilience. Together, they provide both a long-term vision and short-term milestones that guide capital planning, operational investments, and disclosure.

Jul '24 – Jun '25 GHG Emissions

Emissions By Category

Scope 2 Calculation Method: Location-based



CATEGORY	EMISSIONS	% TOT	COMPLETENESS
Scope 1	10,847 tCO_2e	17.83 %	
Scope 2	12,908 tCO_2e	21.22 %	
Scope 3	37,065 tCO_2e	60.94 %	

1. Reduce Emissions by 50% by 2030

Scope: Primarily Scope 2 (electricity use).

Approach: Reduce emissions through renewable energy expansion, efficiency projects, and procurement strategies.

Milestone: 50% reduction from MemorialCare's established baseline by 2030, consistent with federal and state commitments.

2. Increase Renewable Energy Share

Target: Run on 80% renewables by 2030

Pathways:

- Capital purchases of Solar Photovoltaic systems (~$2M per standard facility).
- Annual purchase of RECs (e.g., ~$200K/year to offset hospital fuel cells gas usages).

- Virtual PPAs (offsite renewable energy agreements).
- Longer-term exploration of biogas and hydrogen cogeneration.

3. Achieve Net Zero by 2050

Scope: 1 (direct fuel use) and 2 (electricity).

Alignment: Fully consistent with the HHS pledge and California SB 253/261.

4. Reduce Energy Consumption by 10%

Scope: Scope 1 and 2 emissions from natural gas, electricity, and facility operations.

Approach: Energy audits, retrofits, and exceeding California Title 24 and LEED building standards in all new and remodeled facilities.

5. Reduce Water Consumption by 10%

Scope: Scope 3, across supply chain and operational water use.

Approach: Efficiency upgrades, low-flow fixtures, and water recycling programs.

6. Reduce Waste by 10%

Scope: Scope 3, including medical waste and food waste.

Approach: Participation in food waste reduction programs, recycling and composting expansion, and diversion away from landfills.

7. Electrify Fleet

Target: Transition to zero-emission vehicles for non-emergency transport and administrative fleets.

Approach: Phased electrification as vehicles are replaced; charging infrastructure build-out at facilities.

8. Join Food Recovery and Waste Reduction Program

Target: Partner with a regional food recovery organization to divert surplus food from landfill and support community hunger relief.

Approach: Implement source separation in kitchens and cafeterias and establish routine pickups for recovered food.

9. Enhance Efficient Building Design and LEED Standards

Target: Integrate LEED based sustainable design principles into all new construction and major renovation projects.

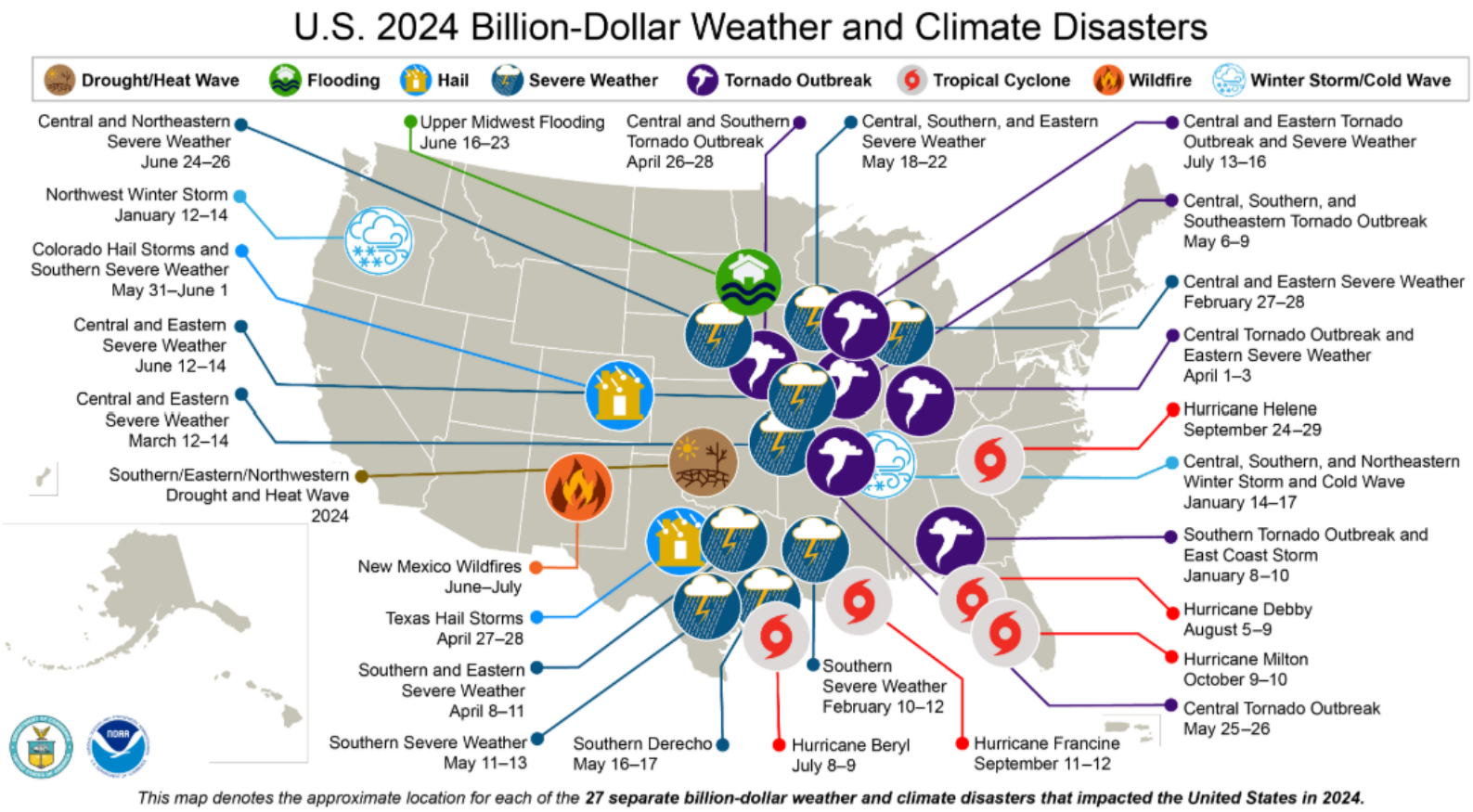
Approach: Prioritize energy efficient systems, water conservation, and low impact materials beginning in early design.

APPENDIX A - Methodology

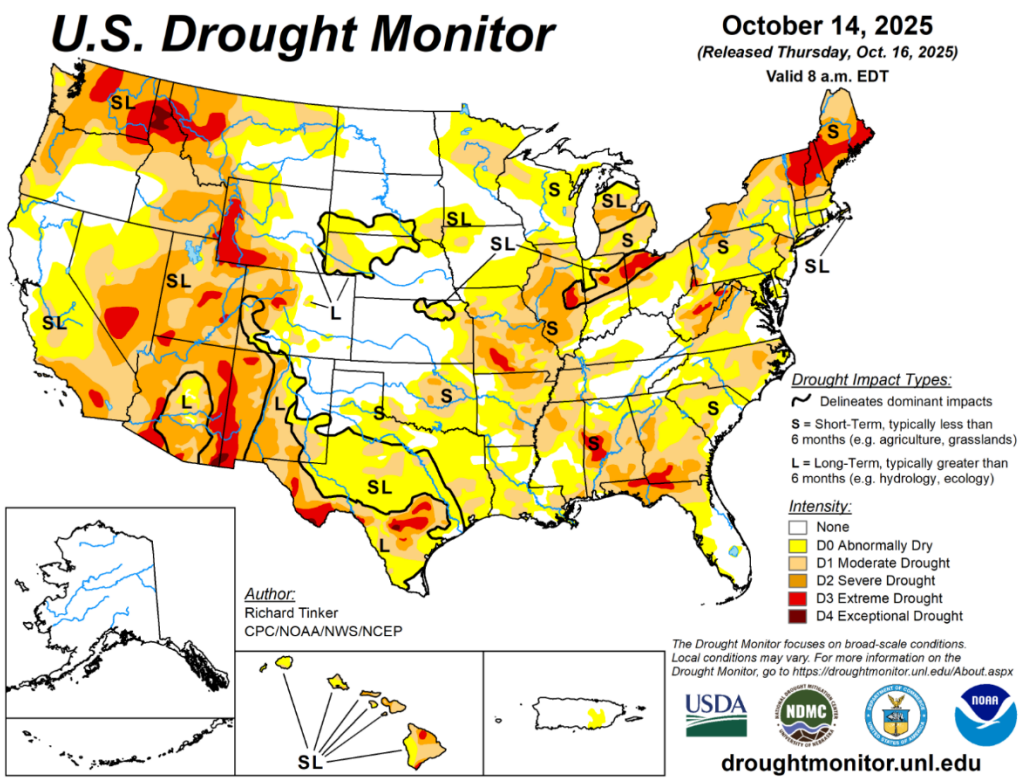
- Quantitative ranges (e.g., potential $200–250 million earthquake losses) are modeled estimates based on MemorialCare's Climate Resilience Plan risk priorities, insurance program data, audited financial statements and FEMA/ASHE loss-ratio benchmarks.

- Pandemic and infectious-disease risk estimates (32–33 % likelihood; $15–30 million surge-response cost) are modeled using MemorialCare's HVA probability ratings and FEMA/HHS reimbursement data.

APPENDIX B – Physical Climate Risk Maps

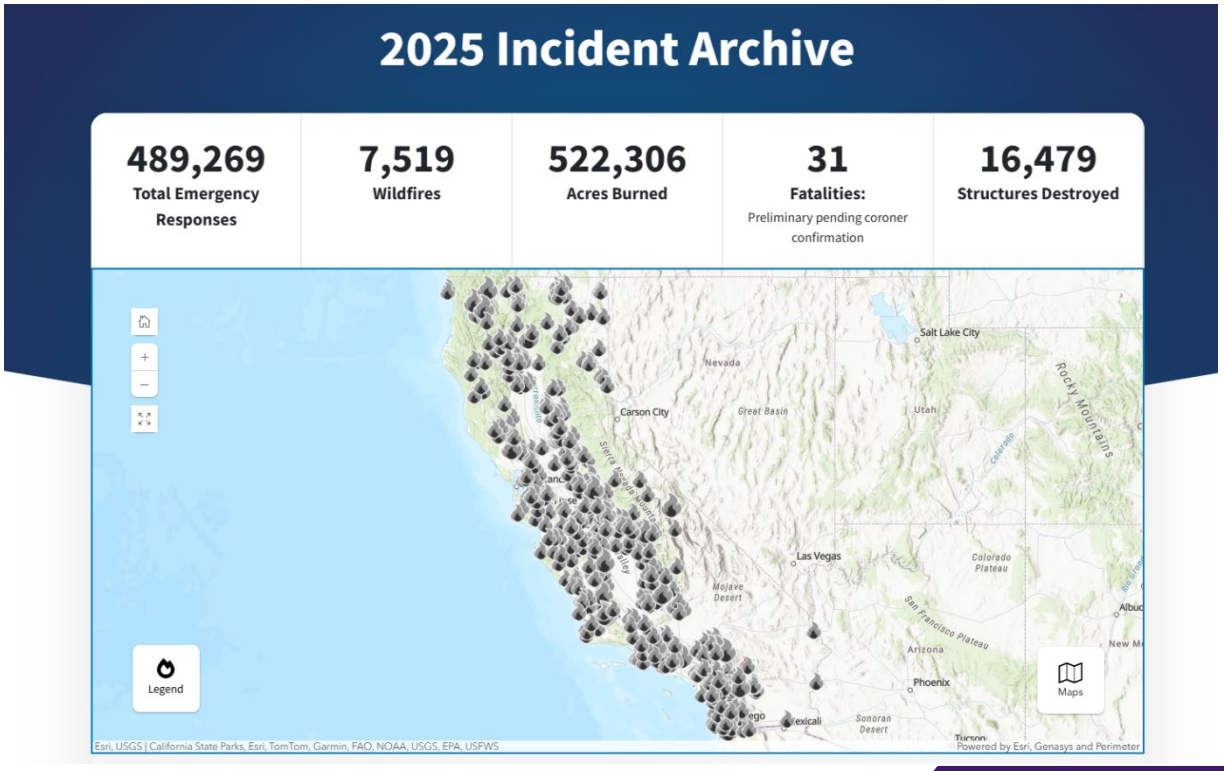


*This map denotes the approximate location for each of the **27 separate billion-dollar weather and climate disasters that impacted the United States in 2024.***

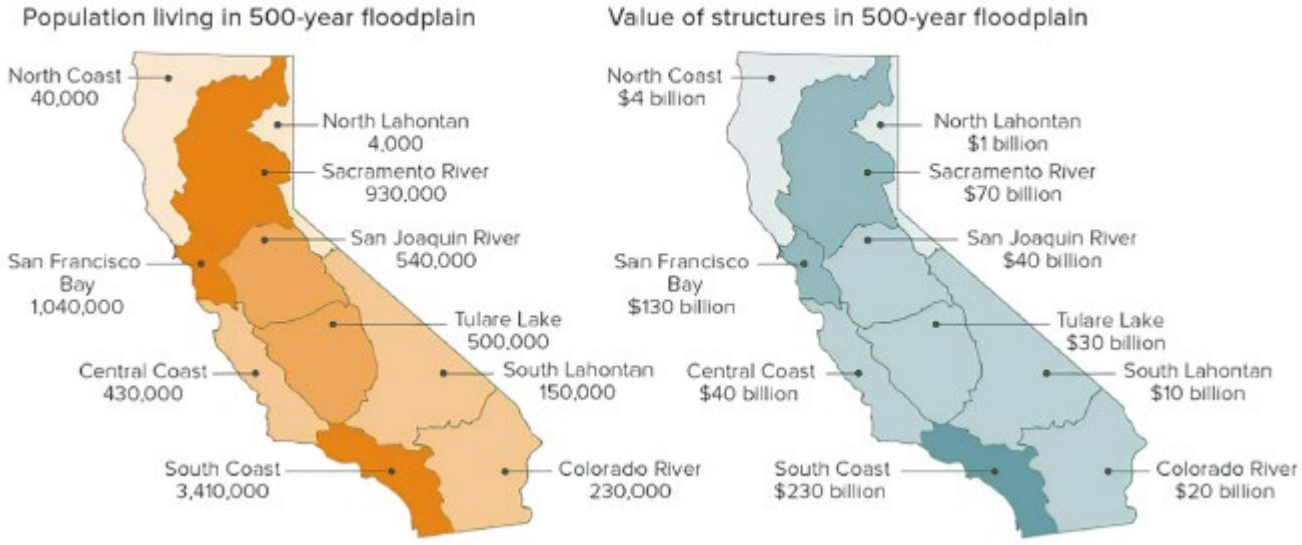


2025 Wildfire Incidents Summary in California

The image below illustrates the number of wildfires which occurred in 2025 and their detrimental impacts.



Floodplain Risks in California



Southern California Fault Line Map