

DWS: SITE-LEVEL CLIMATE RISK AND RESILIENCY CHECKLIST PILOT

SOLUTION OVERVIEW

DWS' real estate business has been investing in assets for more than 40 years and includes \$55.6 billion in assets under management across the globe. DWS implemented a Climate Risk and Resiliency Pilot to assess properties at risk from the impacts of climate change and identify strategies and improvements that would protect occupants, interior systems and equipment, and the physical asset. The sustainability team put together a Climate Risk and Resiliency checklist and focused on sites that have either already experienced the effects of climate-related disasters or will likely experience an acute weather event due to proximity of previous events. They utilized the checklist and made sure to reference recent city-level climate action plans, flood maps, and historic climate-related events. Utilizing the checklist resulted in a consistent and cost-effective process that helped to identify short and long-term considerations to mitigate physical climate risk when an extreme weather event occurs.

CHALLENGE

Identifying and mitigating short and long-term physical climate risks associated with extreme weather events consistently and cost-effectively at sites across their portfolio.

SOLUTION

Created a centralized checklist to identify strategies and improvements when an extreme weather event occurs.

OUTCOME

Properly utilizing the checklist and partnering with a qualified consultant results in a consistent, cost-effective process that helps protect occupants and assets from short to long-term climate risks.

PROCESS

DWS faced several challenges when determining the climate risks affecting properties, including a lack of information surrounding future risks and the need for mapping tools that model multiple scenarios of climate risk at a property level. There are an increasing number of online tools to map and predict climate risks, however it is difficult to find one software solution or company that can cover a global portfolio or even a national portfolio across the U.S. consistently and cost-effectively.

The sustainability team decided to explore a solution through a Climate and Resiliency Pilot. The team had four main objectives as part of the pilot:

1. Evaluate their portfolio to understand and set a baseline for high-risk properties in relation to risk caused by climate change and associated extreme weather events.
2. Assess properties at risk through a checklist devised to identify strategies and improvements that would immediately protect occupants, interior systems and equipment, and the physical asset.
3. Determine how and when to incorporate third-party consulting services.
4. Incorporate long-term considerations into a “Climate Plan” to identify and mitigate physical climate risk. The Climate Plan would also address both emergency procedures for tenants/residents and protection of critical equipment and asset infrastructure.

The first step, evaluating the portfolio and setting a baseline, was key to understanding how much of DWS’s portfolio was potentially under risk and which properties to focus on during the pilot. The pilot team focused on sites that have already felt the effects of climate-related disasters.

Next, the pilot team devised a Climate Risk Checklist for evaluating the higher-risk properties. The checklist included items such as building equipment inventories, location of critical systems relative to sea level rise, and water infiltration evaluations. The pilot team tested the checklist and obtained buy-in from property managers and engineers while on site, so they could show them the procedure first-hand. The team referenced both the checklist and recent city-level climate action plans, flood maps, and historic climate-related events ahead of site visits. Where city-level climate action was not available, DWS worked with their preferred consultant to procure climate data.

Lastly, after completing the checklist, the team sought external consultants to assist in informing decisions at sites that were flagged by the checklist to be at risk. The consultants were key to the pilot as they provided detailed engineering solutions to areas or systems exposed to risk, and forward-looking climate modeling data for sites that did not have municipal data available. The team gathered predictive models on flooding, precipitation, heat stress, wind, and other factors. Collectively the DWS sustainability team and consultants analyzed the results and put together Climate Plans for each property. The Climate Plans incorporate both recommendations to implement within the next budget cycle and a “Future Improvements” section inclusive of potential investments based on the long-term risks predicted through climate scenarios.

Now that the pilot has ended, the team is still working through a top-down portfolio review. The Climate Plans from the pilot are already being budgeted and implemented. DWS’ process of evaluating properties at risk is a permanent program that has expanded to include more sites with the same third-party consultant.

MEASURING SUCCESS

By creating a checklist, which serves as an internal assessment for risk, the sustainability team was able to build a consistent evaluation process that allows property managers and engineers to better understand and anticipate future acute weather events caused by climate change. The same

procedure of targeting known high-risk locations can and will be used across DWS's diverse portfolio going forward. DWS is investing in this process because it shows a significant potential upside in terms of avoided costs from catastrophic damage, liability, and business disruption.

The team completed the following pilot goals:

- Completing one checklist per site.
- Determining short, mid, and long-term measures.
- Identifying a dependable consultant to assist with procuring and analyzing climate data.
- Adding measures to the budget for implementation at the site.
- Having a comprehensive climate plan in place that addresses both emergency procedures for tenants/residents and protection of critical equipment and asset infrastructure.

OUTCOMES

The team analyzed the checklists and recommended measures from each pilot site to help determine what went well and what could be improved upon at future sites. The pilot was successful as the team was able to utilize the checklist at multiple sites throughout the country, with a focus on higher-risk coastal areas. The checklists were used to identify where a Climate Plan was needed to secure the safety of tenants/residents and the asset throughout the short, mid, and long-term. Additionally, DWS determined that investment in implementing preventative measures will yield more value to the asset than responding to a catastrophic and damaging climate event. The pilot also allowed the team to understand the variances between climate data providers between real estate markets to make better investments in data resources for the next round of asset-level assessments. Finally, the value of inviting a third-party consultant to assist with analyzing climate data and mitigation measures became apparent and DWS now partners with the same consultant for all future asset-level assessments. No longer a pilot, DWS has moved forward with the approach at additional assets and incorporated it into a top-down portfolio evaluation strategy.

TOOLS AND RESOURCES

Here are examples of various city climate action plans, flood maps, and other resources that DWS used to inform their assessments:

- City level climate action plans and climate plans
 - <https://www.boston.gov/departments/environment/boston-climate-action>
 - <https://gyr.fortlauderdale.gov/greener-government/climate-resiliency>
 - https://www.miamidade.gov/greenprint/pdf/climate_action_plan.pdf
 - <https://sfenvironment.org/climate-plans-reports>
- Flood maps
 - Historical risk (if in or near a flood zone – note for potential risk):
<https://msc.fema.gov/portal/home#>
 - Future Risks:
https://ss2.climatecentral.org/#11/25.7560/-80.1302?show=satellite&projections=0-K14_RCP85-Annual10pct&level=1&unit=feet&pois=hide
- Policies from Cities
 - <https://toolkit.climate.gov/tool/climate-change-preparedness-and-resiliency-checklist>
 - <http://www.bostonplans.org/getattachment/5d668310-ffd1-4104-98fa-eef30424a9b3>

