



Standard Guide for Climate Resiliency Planning and Strategy¹

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^{ε1} NOTE—5.9.1, 6.3.4.4, 6.3.4.5, and X4.2.1 were editorially corrected in May 2016.

INTRODUCTION

This guide provides a set of options for planning climate resiliency management. This includes adapting local business and government infrastructure to chronic, extreme weather events and sea level rise. It may not apply to entities where such assessment and risk management is already widely available through standard sets of guidance, such as the construction of green buildings. This guide provides a voluntary framework of the risk management options and steps that may be beneficial to evaluate climate resiliency solutions. It provides strategies for existing organizations, even those currently operating outside of various voluntary and regulatory schemes. The environmental assessment and risk management strategies contained in this guide recognize the overall value of existing responses. This guide references and blends similar, effective programs and extends them to provide a consistent approach that will facilitate communication and preparation for extreme weather events.

Background—This guide presents a series of options for an individual, group or entity to use. The goal is a strategy or plan to address extreme weather.

1. Scope

1.1 *Overview*—For the purposes of this guide, ‘resiliency’ refers to efforts by entities, organizations, or individuals to prepare for or adjust to future extreme weather and related physical conditions. The primary purpose is to reduce negative economic impacts associated with extreme weather.

1.1.1 This guide presents a generalized, systematic approach to voluntary assessment and risk management of extreme climate related events and conditions. It helps the user structure their understanding of the climate related vulnerabilities and consequences they seek to manage. It helps the user identify adaptive actions of both an institutional (legal), as well as engineering (physical) nature. Options for analysis provide a priority ranking system to address the “worst first” risks of a municipality, local area or facility, addressing practicality and cost-benefit. Users may approach this analysis having initially undertaken a risk assessment to determine what they are seeking to manage, or use the guide to help determine the likely areas of greatest need.

1.1.2 These climate adaptations or adjustments may be either protective (that is, guarding against negative impacts of

extreme weather), or opportunistic (that is, taking advantage of any beneficial effects of extreme weather).

1.1.3 This guide addresses adaptation strategies and planning in response to various impacts that may occur to individuals, organizations, human settlements or ecosystems in a broad variety of ways. For example, extreme weather might increase or decrease rainfall, influence agricultural crop yields, affect human health, cause changes to forests and other ecosystems, or impact energy supply or infrastructure.

1.1.4 Climate-related impacts may occur locally within a region or across a country and may affect many sectors of the economy. In order to meet these challenges, this guide provides an organized, uniform approach to prepare for the impacts of extreme weather through planned “resiliency” strategies.

1.1.5 This guide addresses options to deal with risk factors that may be key drivers for the economy, human health, the environment, or ecosystems. The guide is aimed at helping users understand risks and potential losses, and offers options and a generalized approach to bolster human and ecosystem resiliency to a changing climate. This includes sustainability concepts such as support of economic stability and a good quality of life.

1.1.6 Adaptation can involve responses to extreme weather and long-term preparation for future events. Local conditions will require risk evaluation and analysis of both likely weather events and/or extreme weather trends.

¹ This guide is under the jurisdiction of ASTM Committee E50 on Environmental Assessment, Risk Management and Corrective Action and is the direct responsibility of Subcommittee E50.05 on Environmental Risk Management.

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