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Introduction to Response Strategies

- 2 People make choices every day about risks and benefits in their lives, weighing experience,
- 3 information, and judgment as they consider the impacts of their decisions on themselves and the
- 4 people around them. Similarly, people make choices that alter the magnitude of impacts resulting
- 5 from current and future climate change. Using science-based information to anticipate future
- 6 changes can help society make better decisions about how to reduce risks and protect people,
- 7 places, and ecosystems from climate change impacts. Decisions made now and in the future will
- 8 influence society's resilience to impacts of future climate change.
- 9 In recognition of the significance of these decisions, the National Climate Assessment presents
- 10 information that is useful for a wide variety of decisions across regions and sectors, at multiple
- 11 scales, and over multiple time frames. For the first time, this Assessment includes chapters on
- 12 Decision Support, Mitigation, and Adaptation, in addition to identifying research needs
- 13 associated with these topics.
- 14 As with other sections of this report, the linkages across and among the chapters are extremely
- 15 important. There are direct connections between mitigation decisions (about whether and how to
- 16 manage emissions of heat-trapping gases) and how much climate will change in the future. The
- 17 amount of change that occurs will in turn dictate the amount of adaptation that will be required.
- 18 In the Decision Support chapter, a variety of approaches to bridge the gap between scientific
- 19 understanding and decision-making are discussed, leading to the conclusion that there are many
- 20 opportunities to help scientists understand the needs of decision-makers, and also to help
- 21 decision-makers use available tools and information to reduce the risks of climate change. The
- 22 Mitigation chapter describes emissions trajectories and assesses the state of mitigation activities.
- 23 While these efforts represent significant steps toward reducing greenhouse gases, and often result
- in additional co-benefits, they are not close to sufficient to reduce total U.S. emissions to a level
- consistent with the lower scenario (B1) analyzed in this assessment. The Adaptation chapter
- assesses current adaptation activities across the U.S. in the public and private sectors, and
- 27 concludes that although a lot of adaptation planning is being done, implementation lags
- 28 significantly behind the scale of anticipated changes.
- 29 The report concludes with chapters on Research Needs to improve future climate and global
- 30 change assessments and on the Sustained Assessment Process, which describes the rationale for
- 31 ongoing assessment activity to achieve greater efficiency and better scientific and societal
- 32 outcomes.