



NIST Technical Note 2117

# Resilience, Adaptation, and Sustainability Plan Assessment Methodology: An Annotated Bibliography

Christopher Clavin  
Avery D'Abreau  
Emily H. Walpole  
*Materials and Structural Systems Division  
Engineering Laboratory*

This publication is available free of charge from:  
<https://doi.org/10.6028/NIST.TN.2117>

September 2020



U.S. Department of Commerce  
*Wilbur L. Ross, Jr., Secretary*

National Institute of Standards and Technology  
*Walter Copan, NIST Director and Undersecretary of Commerce for Standards and Technology*

Certain commercial entities, equipment, or materials may be identified in this document in order to describe an experimental procedure or concept adequately. Such identification is not intended to imply recommendation or endorsement by the National Institute of Standards and Technology, nor is it intended to imply that the entities, materials, or equipment are necessarily the best available for the purpose.

**National Institute of Standards and Technology Technical Note 2117**  
**Natl. Inst. Stand. Technol. Tech. Note 2117, 83 pages (September 2020)**  
**CODEN: NTNOEF**

**This publication is available free of charge from:**  
**<https://doi.org/10.6028/NIST.TN.2117>**





































































































































- (3) utilizing qualitative content analysis through the use of multiple independent document reviewers; and
- (4) analyzing the results using various qualitative, descriptive, or statistical methods to test study hypotheses or describe commonalities and differences in elements observed in the set of plans (Berke and Godschalk 2009).

Specific plan evaluation instruments varied across the studies examined. However, a common set of principle criteria were observed across the studies reviewed. These plan principles are described in Table 3.<sup>2</sup>

Table 3. Plan principles for evaluation methodology

Plan Principle	Description
Goal Setting	Statements or descriptions that reflect public values for future desired conditions. These may be vision statements, goals and objectives statements, plan purpose descriptions, or success criteria.
Fact Base (including handling uncertainty)	<p>Empirical evidence or information that describes present or expected future conditions. This includes information about hazards, climate change impacts, vulnerability or risk assessment, information about the built environment including information about development patterns and land use, information about vulnerable populations, information about natural systems, and economic conditions.</p> <p>Uncertainty is considered a separate plan principle in some studies, however the methods to assess and describe uncertainty and the choices for how to report uncertainty, apply to any of the fact base elements.</p>

<sup>2</sup> Based upon Berke and Godschalk (2009), modified by Woodruff and Stults (2016), and term description adjusted based upon other articles reviewed in the annotated bibliography.













































