



Report on the NOAA Office of Education Environmental Literacy Program Community Resilience Education Theory of Change



National Oceanic and
Atmospheric Administration
U.S. Department of Commerce

Authors: Genie Bey, Carrie McDougall,
and Sarah Schoedinger | Version: July 2020

ACKNOWLEDGEMENTS

The authors would like to thank everyone who gave their time, attention, and expertise to reviewing and commenting on various iterations of the ELP Community Resilience Education Theory of Change and this report. In particular, input from the ELP Resilience Education Community of Practice and the NOAA Climate Program Office's Climate and Societal Interactions and Communication, Education, and Engagement Divisions was critical to shaping this theory of change. Finally, special thanks to Judy Braus, Executive Director of NAAEE, for providing a detailed review of the full report and authoring the foreword.

Authors: Genie Bey, Carrie McDougall, and Sarah Schoedinger, NOAA Office of Education

Contributors: Maggie Allen, John Baek, Gabrielle Corradino, Jaime Frungillo, Louisa Koch, John McLaughlin, Christos Michalopoulos, Bronwen Rice, and Brianna Shaughnessy—all from the NOAA Office of Education—and Frank Niepold from the NOAA Climate Program Office.

Illustration & Design: Jessica Bromley Bartram Illustration & Design (jessicabartram.ca)

© This publication may be redistributed non-commercially in any media, unchanged and in whole, with credit given to the NOAA Office of Education.

Published in 2020

Suggested citation: Bey, G., C. McDougall, & S. Schoedinger. 2020. Report on the NOAA Office of Education Environmental Literacy Program Community Resilience Education Theory of Change. National Oceanic and Atmospheric Administration, Washington, DC. doi:10.25923/mh0g-5q69



Published by the NOAA Office of Education

noaa.gov/elp-resilience-TOC

An accessible version of this report and other related materials are available at the site listed above.

Contact us: oed.grants@noaa.gov

SECTION III

Navigating the NOAA ELP Community Resilience Education Theory of Change



SECTION III

Navigating the NOAA ELP Community Resilience Education Theory of Change

A theory of change begins with a problem statement and ends with a goal. In between, causal pathways depict the short-, mid-, and long-term outcomes that must be met in order to achieve the end goal. Theories of change typically include an end goal that is idealistic and far-reaching. The end goal here is large in scope and it cannot be accomplished by NOAA or the ELP alone. Therefore, an intermediate goal that articulates how the ELP contributes to the end goal has also been written and is referred to as the ELP goal. Interventions provided by the agency and program show how both are working to address the challenges laid out in the problem statement to achieve the end goal.

Based on the approaches and outcomes from the ELP-funded community resilience education projects and assumptions gleaned from the literature review discussed in Section II, six causal pathways have been identified so far. Each pathway reflects outcomes from multiple projects and the pathways are not meant to be prescriptive. Successful projects may achieve outcomes in several different causal pathways and not all projects will achieve all of the long-term goals in a pathway. Most of the short- and mid-term outcomes encompassed in these pathways are already occurring in existing projects, whereas the long-term outcomes are aspirational and may occur with more effort (i.e., more than one project) and over a longer time period. Community resilience education projects can be evaluated based on pathway outcomes, although impact evaluation would likely include outcomes specific to project goals and context.

These short-, mid-, long-term, and program outcomes are the necessary preconditions for achieving the goals that have been articulated. In some cases there is a hierarchy within the short- or mid-term groups of outcomes. The arrangement of the outcomes (from left to right) indicates some level of sequence although not necessarily a dependence (that one outcome must occur before the next outcome occurs). If there is a strong dependence of one outcome on another, that is depicted in the causal pathway diagrams with a vertical color bar.

These six causal pathways are not the only means to achieve community resilience through education. As the program evolves, additional outcomes and/or causal pathways may be developed. Beyond those funded through NOAA's ELP, other institutions may identify other outcomes and causal pathways that contribute to the end goal articulated in this theory of change. This additional perspective and input will be welcome. For this reason, this theory of change will remain a living document that will be updated regularly to reflect progress made by the ELP, as well as contributions from others in the field of community resilience education.

Finally, to provide a synopsis of the major outcomes from all six causal pathways and relate these to the problem statement, interventions, and the ELP and end goals, a "Pathway to Change" diagram has been created. This depiction can be thought of as the abstract of the entire theory of change.