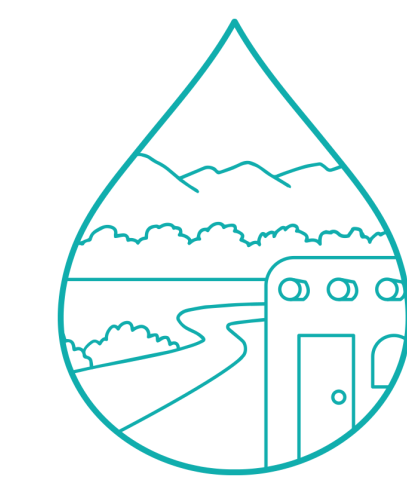


Sustainable Water Resources Grand Challenge Research Communication Scholarship

Post-Wildfire Flooding in Ohkway Owingeh



Grand Challenges
grandchallenges.unm.edu

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INTRODUCTION

As part of the Sustainable Water Resources Grand Challenge Research Communication Scholarship, I designed a visual graphic to communicate an overview of this project. The figure depicts the workflow for both long-term and near-real-time risk assessment, which includes near-term early flood warning and long-term decision making for infrastructure projects and education. The graphic uses symbols to depict various aspects of the project, such as types of input data and computational models used within the workflow. By creating a graphic summary of the project, the interconnections between data, models, and actions are more clearly communicated to a non-technical audience.

BACKGROUND

UNM GRAND CHALLENGES

- The UNM Grand Challenges Water Resources was created to help tackle the state of New Mexico's water crisis that causes the residents of New Mexico disproportionate impacts from water scarcity
- The Sustainable Water Resources Grand Challenge Research Communication Scholarship was created to enable undergraduate students to participate in interdisciplinary research that has a positive impact on water sustainability in the state of New Mexico

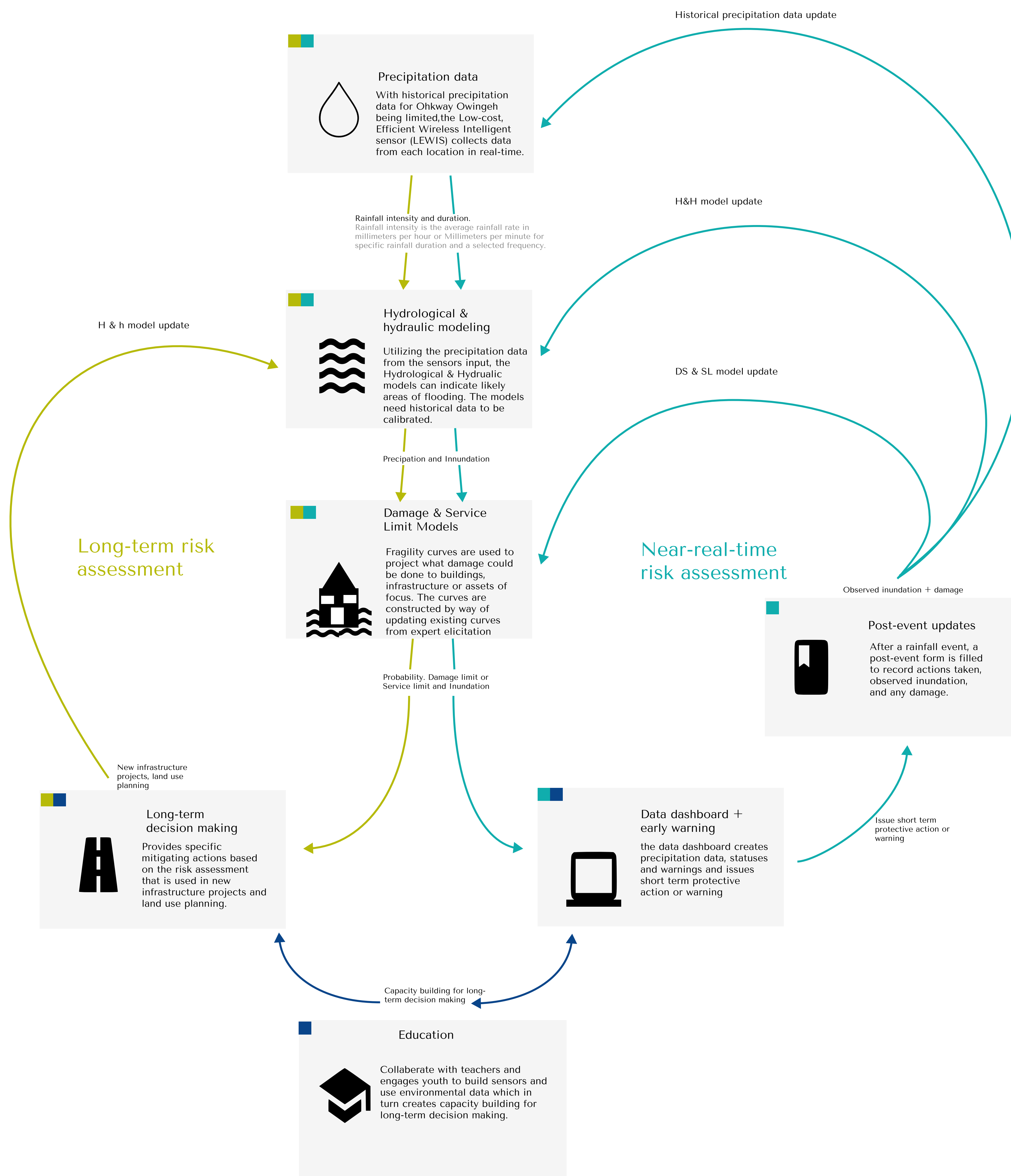
WHAT IS SCIENCE COMMUNICATION?

- The job of science communicators is to instill science within narratives relatable to non-scientist. This enhances public awareness of science, increases enjoyment and interest in science, technology and engineering, and informs public understanding or opinion of scientific endeavours.
- By creating an easy-to-read infographic, the complex information is relayed in an easy way for the public to understand.

(Burns, Timothy W. et al. "Science Communication: A Contemporary Definition." Public Understanding of Science 12 (2003): 183 - 202.)

WHAT IS THE CIVIC INNOVATION CHALLENGE at UNM?

The UNM CIVIC team consists of UNM Researchers, student researchers, industrial and regional partners. CIVIC is co-planning the project with Ohkay Owingeh Pueblo and four academic units are the University of New Mexico, consultants, educators, and the New Mexico Department of Transportation who is represented by the Tribal Liaison and other indigenous leaders in Native American Resilience in New Mexico. The long-term goal of the UNM CIVIC team is develop a scientific community that will share ideas, designs and applications to create a resilience in tribal communities which is achieved by co-developing capacity and communications that are related to low-cost sensors and decisions platforms all throughout indigenous communities.



DESIGN ELEMENTS OF THE INFOGRAPHIC

- The Infographic Design and information collection process was based off a flowchart of the original infographic for the Post-Wildfire Flooding in Ohkay Owingeh project being conducted by some members of our research team
- Icons indicate stages in infographic
- Arrows that indicate inputs and outputs are color-coded **turquoise for near-real-time risk assessment, gold based on long-term risk assessment, and blue for education.**
- The blocks are color-coded based on output/input.

LEARN MORE

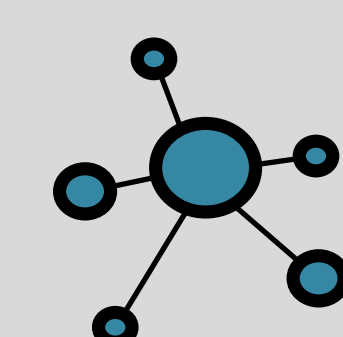
Learn more about the current work of CIVIC, Dr. Yolanda C. Lin and UNM Grand Challenges at

- www.yolandaclin.com
- www.lewisnetwork.org
- www.grandchallenges.unm.edu



ACKNOWLEDGEMENTS

The communication science project was supported by the UNM Grand Challenges. I would like to acknowledge the support of UNM Geography and Environmental Studies, UNM Civil, Construction and Environmental Engineering, and our partner Ohkay Owingeh Pueblo. The UNM CIVIC project is funded by NSF Award #2133334.



NSF CIVIC Innovation Challenge

