



# What It Takes To Work at Flood Control

**August 2025**

**Hannah Whipple**

Flood Warning Program Associate/Meteorologist





# My Background

# ABOUT ME

- **Northern AZ native (Mogollon Rim area)**
- **Curiosity drew me to the meteorological world**
- **Loved the connection between math, science, public service, and communication**

**FROM THERE...**

A blurred background image of a desert landscape featuring saguaro cacti, low-lying shrubs, and distant mountains under a clear blue sky.

## **ARIZONA STATE UNIVERSITY (2020–2024)**

- **Bachelors of Science in Geography  
(Meteorology/Climatology)**
- **Certificate of Atmospheric Science**
- **Minor in Sustainability**



# Student Involvement



- Weather and Climate Club (2021-2024)
- SGSUP Volunteer (2021-2024)
- NWS Skywarn Spotter (2022-Present)
- AMS Member (2022-Present)





# What Do I Do?

# My Role

at Flood Control District of Maricopa County

June 2024 – February 2025:  
**Flood Warning Branch Intern**

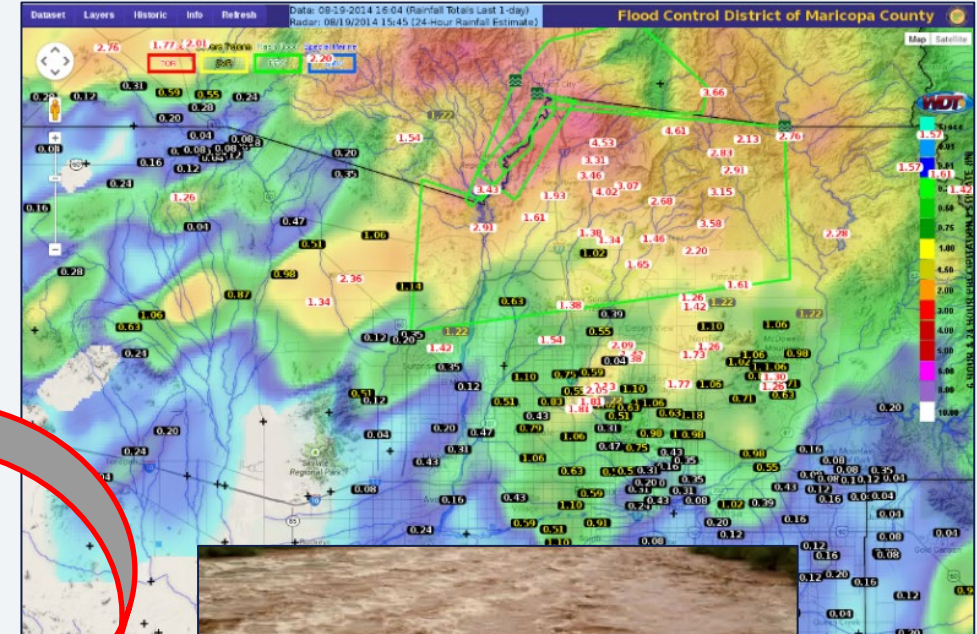


February 2025 – Present:  
**Engineer Associate**

Basically... this means I do engineer-adjacent tasks  
without registration as a Professional Engineer



# Flood Warning Program Operations



## METEOROLOGICAL SERVICES PROGRAM MESSAGE STATEMENT

07/02/2025 @ 7:48 PM MST by Malloy, J.  
Phone: 602-506-8701 (Alert Room), 480-404-0516 (Cell)

## MESSAGE 1 ALERT

Valid Time: Now - 9:00pm

### COMMENTS:

- Several clusters of strong to severe t-storms are rapidly developing over and in close proximity to the West Valley Forecast Zone. These storms are nearly stationary and will be capable of creating wind gusts of 30-50mph along with blowing dust, small hail and



# Meteorological Services Program

## Non-Message Periods

- Daily Weather Outlooks
- 24 Hour Metwatch

## Active Periods

- Message Issuance
- Hydrowatch
- Internal Alerts
- Alert Operations

## Post-Period

- Forecast Verification
- Storm Reports
- Water Year Reports
- Rainfall Maps

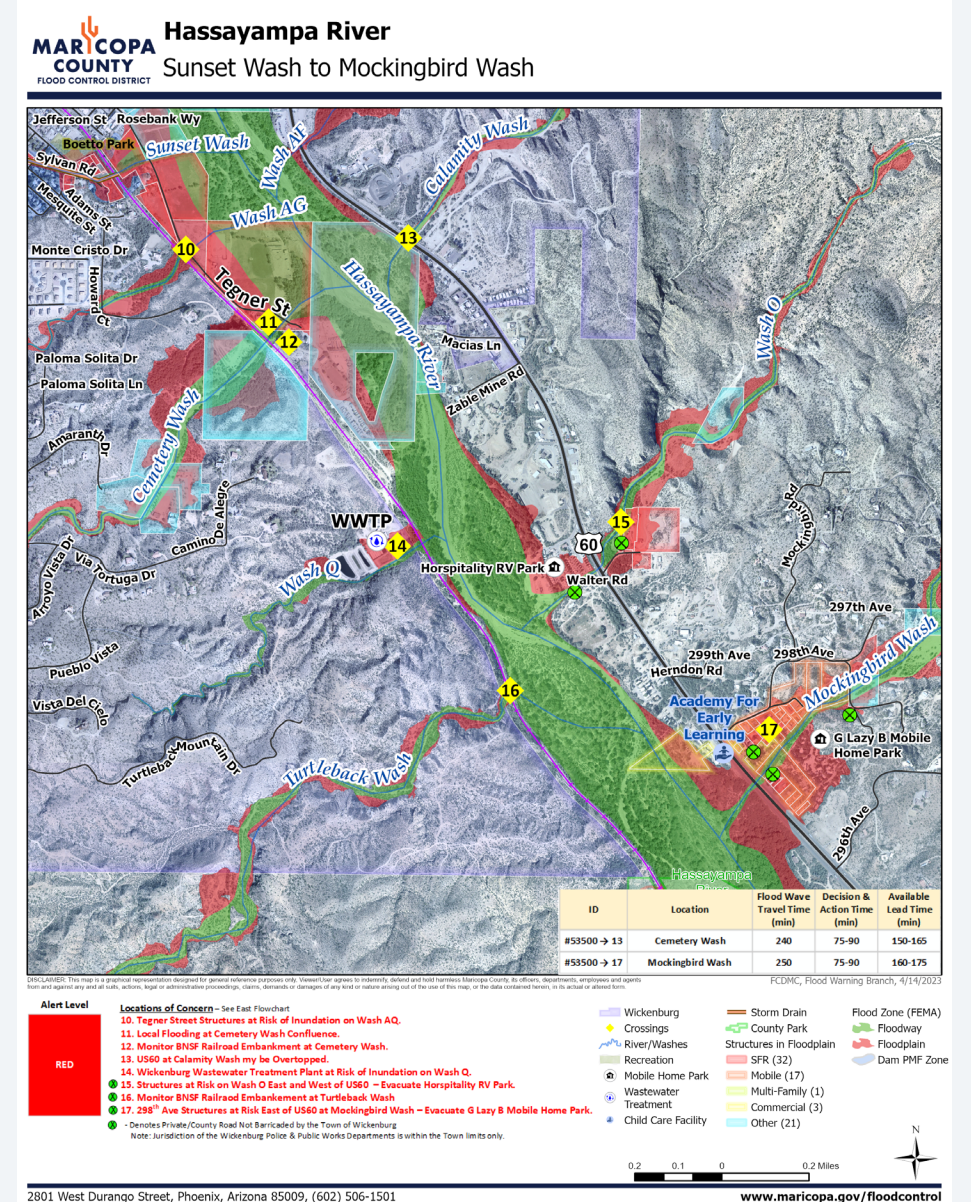
# Flood Response Plans

## PURPOSE

- Formalized communications/warnings
- Dissemination of information for all departments
- Outline levels of Ready-Set-Go

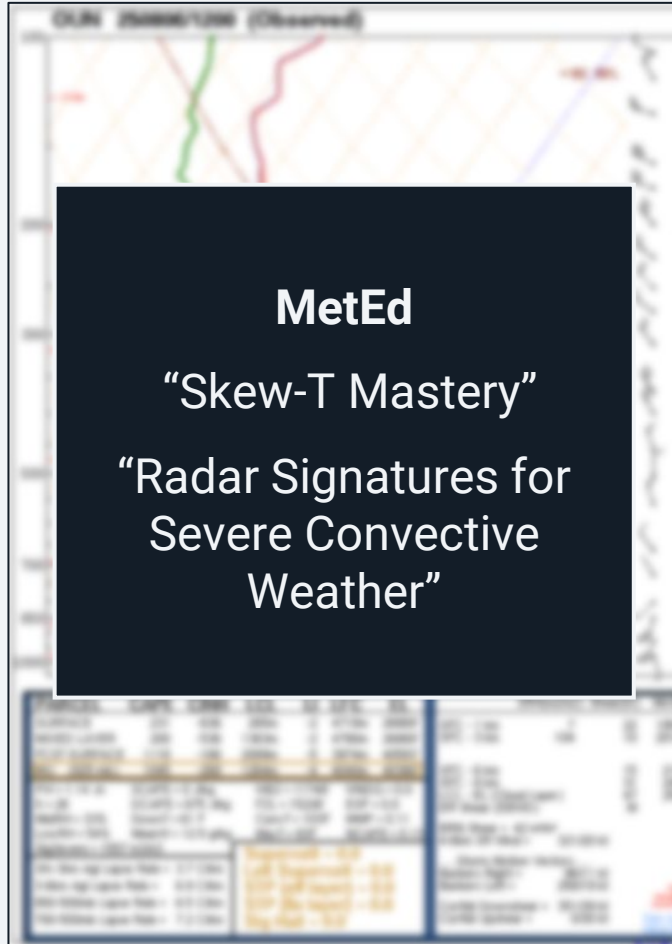
## WHAT'S IN IT?

- ALERT Protocol
- Actions Required
- Trouble Areas
- Critical Times





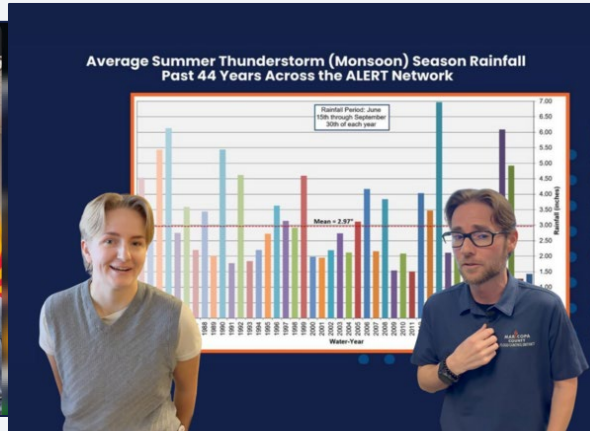
# Courses + Skills



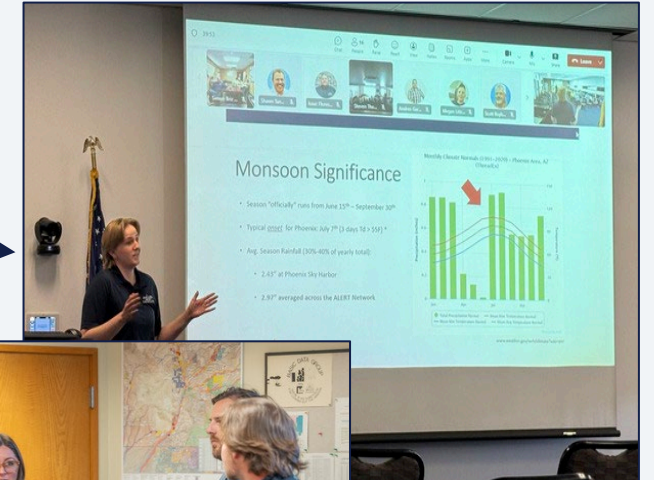
# Getting Out and Showing Off



## FIELD WORK



## EDUCATION



## SOCIAL MEDIA



# What I Wish I Knew A Year Ago...

- **Be prepared to feel *miles* out of your comfort zone:**
  - It's good for you
- **Ask questions and take notes:**
  - There's a lot to learn, set yourself up for success
- **Trust yourself and your expertise:**
  - You know more than you think you do
- **Don't limit yourself to one thing:**
  - Meteorologists are also hydrologists, public speakers, emergency coordinators, data scientists, etc.
- **You're going to do a LOT of talking:**
  - Trainings, weather briefings, conferences, webinars, social media, etc.



# What's Next?

An aerial map of Mesa, Arizona, with flood zones highlighted in cyan. The map shows the Salt River and various city boundaries. Text labels on the map include "ZONE AE", "SALT RIVER", "MARICOPA COUNTY INCORPORATED AREAS", "CITY OF MESA 040048", and various street numbers like 14, 15, 18, 19, 22, 23, and 24.

**SHORT TERM...**

**Masters of Applied Science in GIS:**  
Arizona State University

**Certified Floodplain Manager (CFM):**  
Association of State Floodplain Managers

# Questions?



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