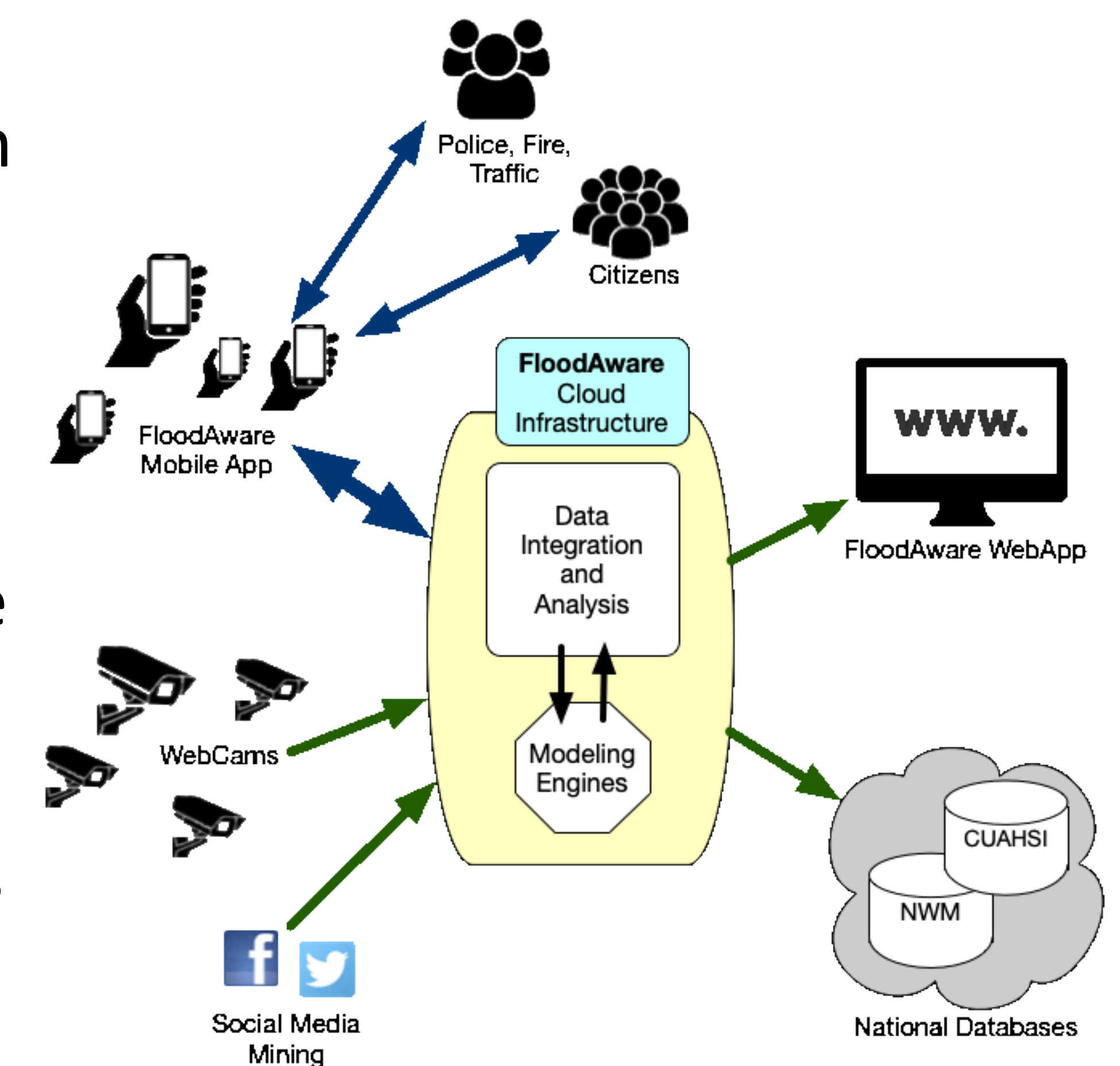


Urban flooding remains a major public health and infrastructure hazard across the US and globe, and climate change threatens to worsen flood risk. As novel sensing, communications, battery, and distributed technologies emerge, there is a major opportunity to advance flood sensing, analytics, and communications. With the emergence of novel distributed technologies (e.g., webcams, smart phones, etc.) communities can be positioned to drive next generation flood sensing.

FloodAware has partnered with city, regional, and state agencies, community organizations, and individuals (citizen science applications) to create a distributed and open network of public participants to provide flood awareness data. Community members provide access to webcams, and log flood events at hotspots. The Integrated Flood Observation Network (IFSON) backend stores and analyzes input data streams, and communicates flood events back to community members.

While there is increasing recognition that infrastructures are vulnerable to precipitation events and that adaptation strategies are needed to protect infrastructures and the people who rely on them, there remains a dearth of capacity to actively sense flooding risks and communicate these risks in realtime to users and managers. As such, the development of new technologies to sense, anticipate, and communicate risks represents a new frontier for research and theory.



The research empowers local citizens in managing flood event risk. The focus remains on the interface of community with technology to engage citizens, planners, responders, and local stakeholders within a collaboratively constructed information space.

The FloodAware framework and IFSON backend will be operated past the initial grant funding relying on continued community participation and minimal resource needs. New partners include the City of Atlanta and Los Angeles County.

In our final year we are focusing on 1) refining our hydrological modeling capabilities for improved integration of flood data streams and flood data warning systems, and 2) expanding our network of community participants.