Stakeholder Engagement for Water Hazards Science and Response Project

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Abstract

Science and data providers have a critical role gathering, analyzing, and distributing hazard data to communities and decision makers. Though the lifesaving and loss-reducing benefits of these services are clear, not everyone benefits equally. For issues of water quality, quantity, and access, it is not always clear how this information is used or where gaps exist, which may stymie vulnerability reduction efforts. The U.S. Geological Survey is working to better understand the needs and challenges of our partners and the communities we serve by identifying opportunities to reduce data gaps, and to improve access to, and delivery of, our hazard-related science and data. This project will draw from the perspectives of emergency management professionals, academics, decision makers and communities to understand how and where USGS water-hazard data and expertise is used across the emergency management cycle, and to identify the gaps and opportunities for data collection, analysis, and delivery that USGS can help fill.

Project Background and Objectives

The **Stakeholder Engagement for Water Hazards Science and Response Project (SERP)** is tasked with assessing internal and external perceptions to USGS, needs, opportunities, and organizational processes concerning water-hazards science and response. We will use that information to identify how the Water Mission Area (WMA) at the USGS can best support these efforts at all stages of water-hazards events, and identify opportunities to improve the consistency, alignment, and maturity of our water-hazard science, response, communication, and data-delivery. This project focuses specifically on **inland/coastal floods, post-fire runoff, drought, spills, water quality / harmful algal blooms (HABs).**

The U.S. Geological Survey's tools and products used for water-hazard research (Figure 1) serve the scientific and emergency management communities in the *preparedness*, *response*, *recovery*, and *mitigation* areas of the emergency management cycle. These areas are defined along the project as:

Preparedness: Developing a state of readiness; steps taken to enhance capabilities to protect against, respond to, or mitigate threats from hazards.

Response: Short term, reactive procedure aimed at preventing loss of life, and for limiting potential injury and reducing damage/losses to property and infrastructure.

Recovery: Longer-term activities following the emergency phase of an event. Aimed at restoring normal living conditions.

Mitigation: Activities aimed at reducing future disaster-related losses. Aimed at reducing hazard impact either by reducing the hazard scale/magnitude (such as building levees to limit potential for flooding), or by limiting the population/ infrastructure exposed to the hazard (such as by zoning and land use planning regulations).

USGS Tools and Services Used in Water Hazard Research

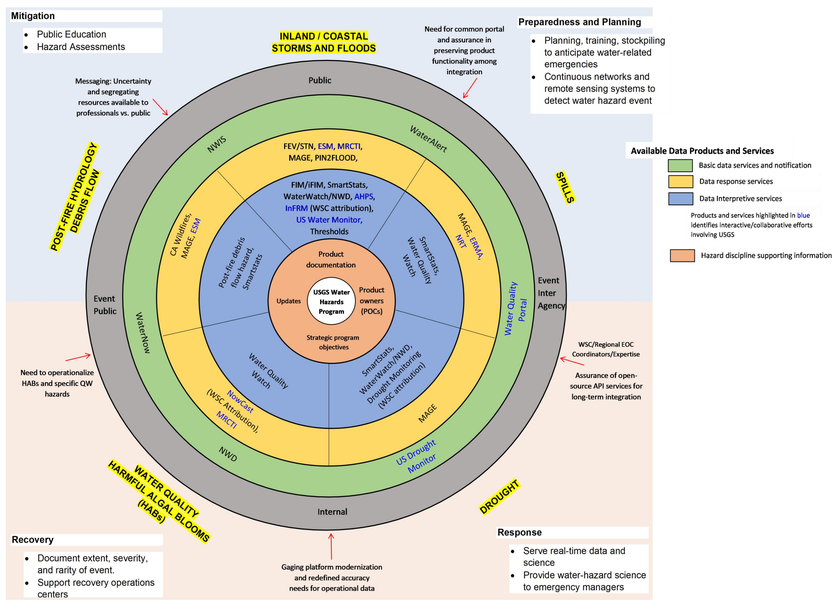

Figure 1. Most common USGS tools and services support data application in emergency management areas (figure by Paul Rydlund).

We expect that stakeholders' perspectives on WMA's role in water-hazards will identify areas of improvement, such as **outreach and communication**, **roles and responsibilities**, **data products and services**, **data dissemination**, **data gaps**, and **funding allocation**.

Expected Outcomes and Deliverables

This engagement process combines data from internal and external stakeholders collected via questionnaires, focus groups and listening posts for the project duration. The final project findings will support answering three core research questions (Figure 2):

1) **How do external stakeholders perceive USGS' role in supporting emergency management of water-related hazards?**
2) **What is the ideal role for USGS in the emergency management cycle?**
3) **What are the challenges limiting external stakeholder engagement with USGS expertise and data?**

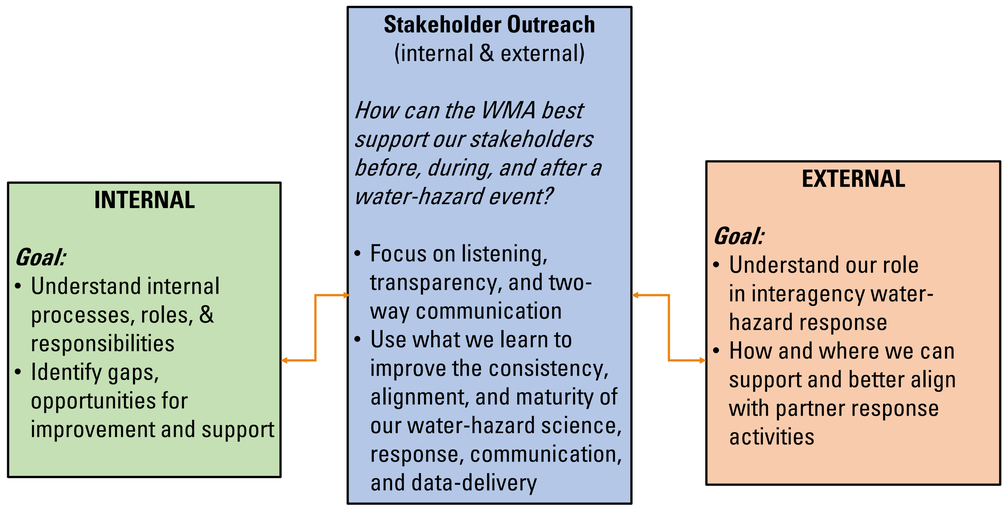

Figure 2. Goals for the internal and external engagement in SERP leads to clear understanding of WMA support towards stakeholders.

HOW TO PARTICIPATE? – SIGN UP

Take the survey below to help USGS answer the core research questions about water hazards. The survey takes approximately 15 minutes. Your input will be confidential, and responses will only be reported in aggregate. Your participation is appreciated. Use the QR code to start your participation and contribution to understanding water products, services, and data delivery used within and outside of the U.S. Geological Survey.

Use the code below to access the survey:

For more information, contact:
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