The Innovative PIO: Tools and Best Practices for Technology-Enabling Public Information

PrepTech Talks

May 27th, 2020

National Alliance for Public Safety GIS (NAPSG) Foundation

napsgfoundation.org | @napsgfoundation

NAPSG Foundation

Having situational awareness in the EOC….

...means nothing without situational awareness in the living room.

Today's Objectives

Everyone should leave this session with:

- A better understanding of common challenges and solutions associated with public information.

- Two stories from innovative public information officers that they can use to raise thoughtful discussion in their own agency.

- Best practices and tools for public information exchange they can get started with today.

NAPSG Foundation

Agenda

00:00 Webinar "Housekeeping", Recap

00:05 Hands-on Exercise

00:15 Vignettes from the EOC

- Justin Kates - Director of Emergency Management at City of Nashua, NH
- Joel Hanson & Lauren Childress – Douglas County, CO

00:45 Best Practices and Tools for PIOs

00:55 Questions & Answers via Q&A Feature in Zoom

01:00 Closing

This slide deck, supporting materials, and a recording of today's session will be posted to the NAPSG website. Also, an email will be sent to all registered participants with the link.

Web Conference Security

Security Measures Implemented:

- All attendees are muted upon entry. Only the host can unmute a participant.
- Ability for chat-to-chat by participants has been disabled.
- Only the host and panelists with a secure and unique login can share their screens.

Options for Participation:

- Full Zoom and Audio via weblink and/or in combination with telephone for audio.
- Audio Only – Call in using the Telephone Numbers Provided to listen only.

Reminder:

All registrants will receive an email with the link to the slide deck and other resources in the next few days.

Engage and Participate!

- Due to the large attendance, all participants are muted for the duration of the session to prevent background noise.

- Please **use the Q&A functionality within Zoom** for questions.

- We will address these Q&A at the end of the webinar!

About NAPSG Foundation

Our Vision

A Nation of emergency responders and leaders equipped with the knowledge and skills in applying technology and data to change the outcome for survivors.

- 501(c)(3) Non-profit organization established in 2005

- +20,000 member network: Public Safety leaders, first responders, and GIS practitioners

- Board of Directors comprised of public safety & emergency management industry leaders

www.napsgfoundation.org

How Do We Do It

Transferring knowledge and skills

Tech Assistance

Building capacity in using innovative technology

Education & Training

Fostering regional collaboration through implementation

Exercises & Simulations

Defining and promulgating consistent best practices

National Guidelines and Standards
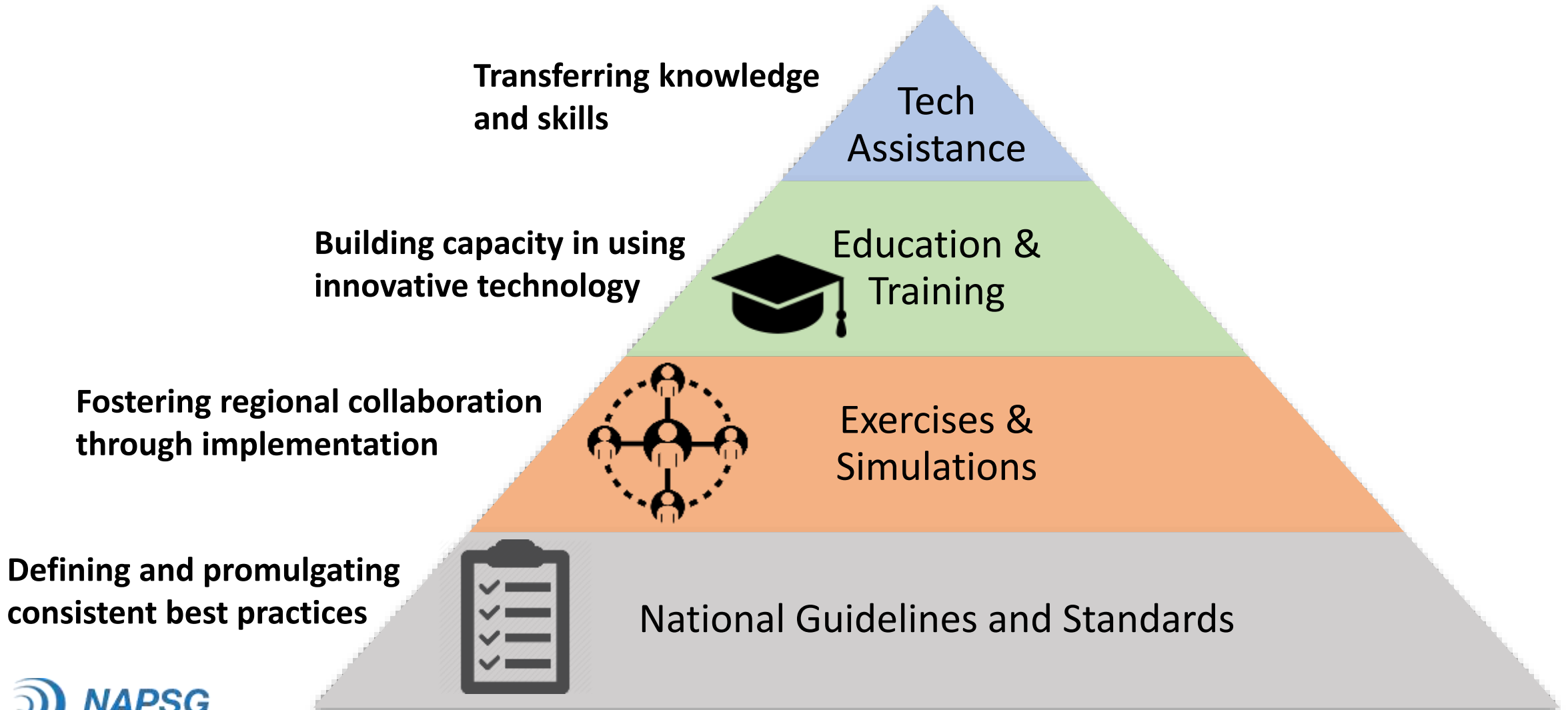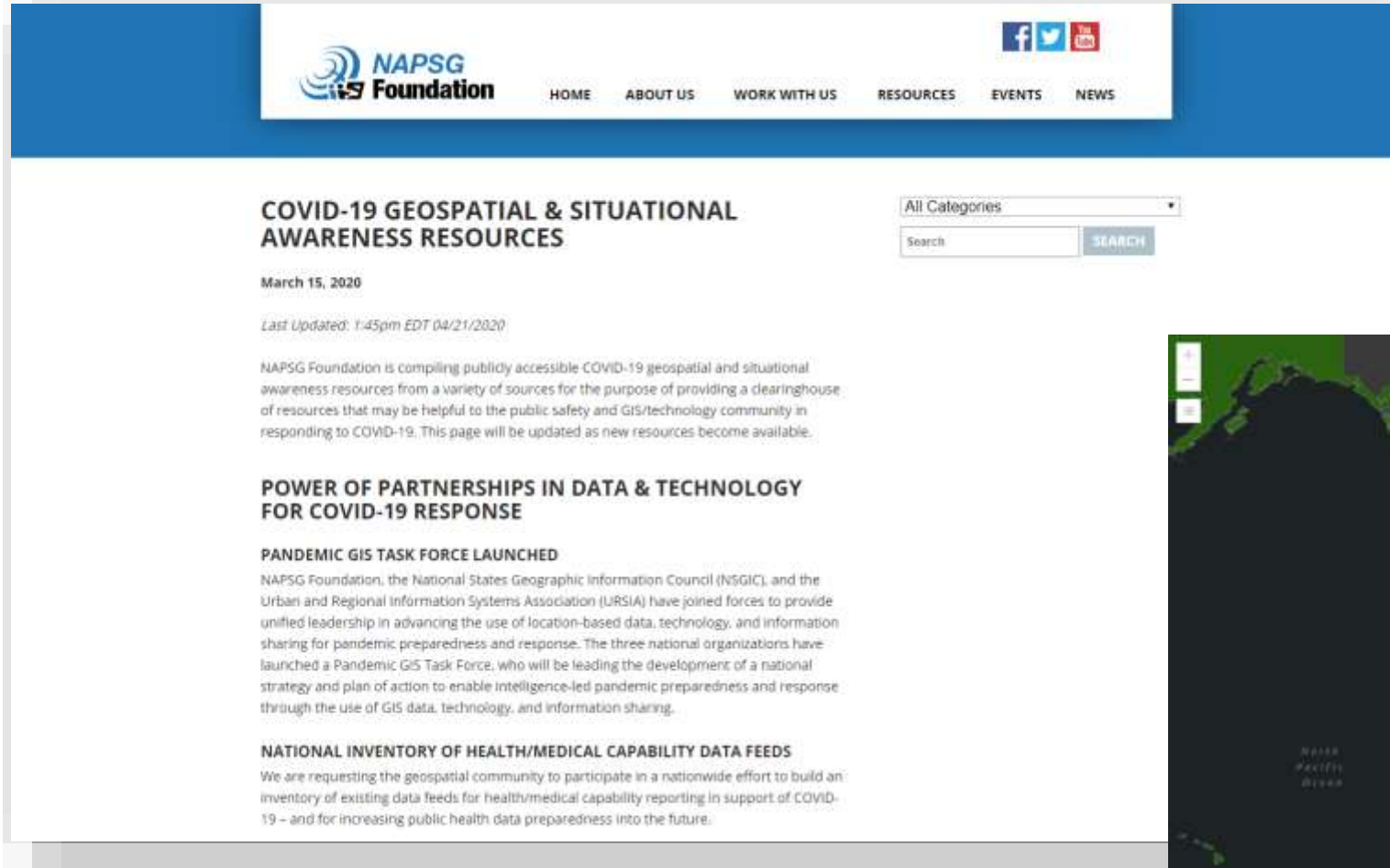
NAPSG Foundation

Local Focus – National Reach

- 20,000+ member network

- 12 primary national & international associations

- All disciplines

- All levels of government

- Private sector
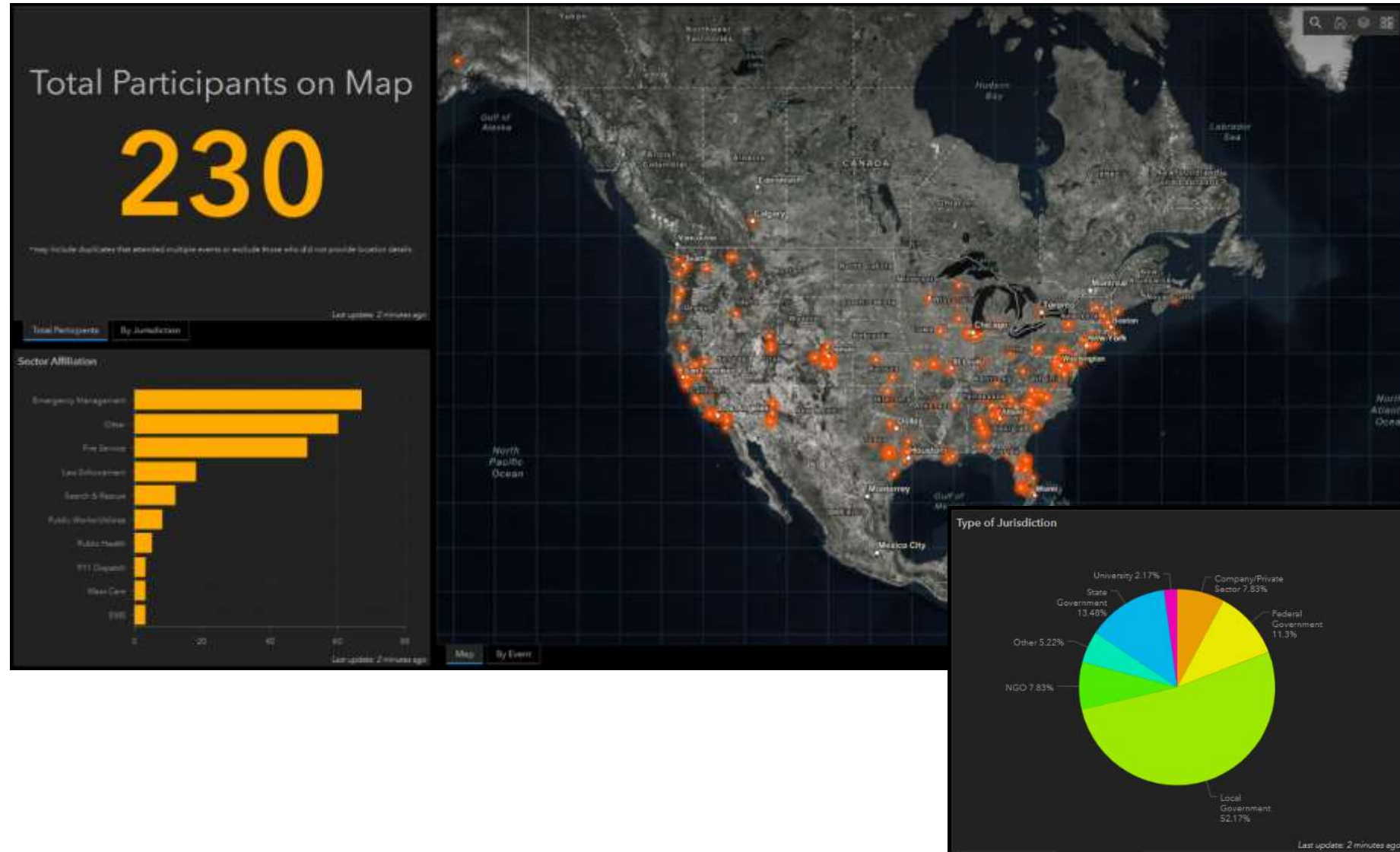
NAPSG Foundation COVID-19 Resources

See examples of public information by state for COVID-19.

https://www.napsgfoundation.org/resources/covid-19/
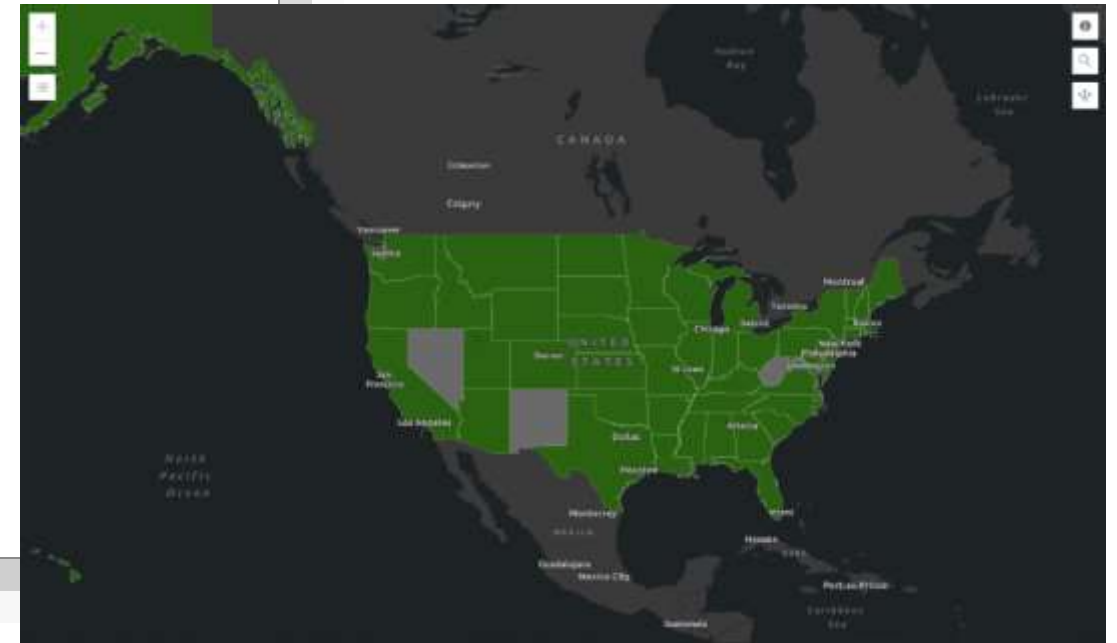
Key Messages

Recap from December 2019 PrepTech Talk

December 2019 PrepTech Talk – GIS Tips & Tricks

SITUATIONAL AWARENESS FOR THE LIVING ROOM

PrepTech Talks
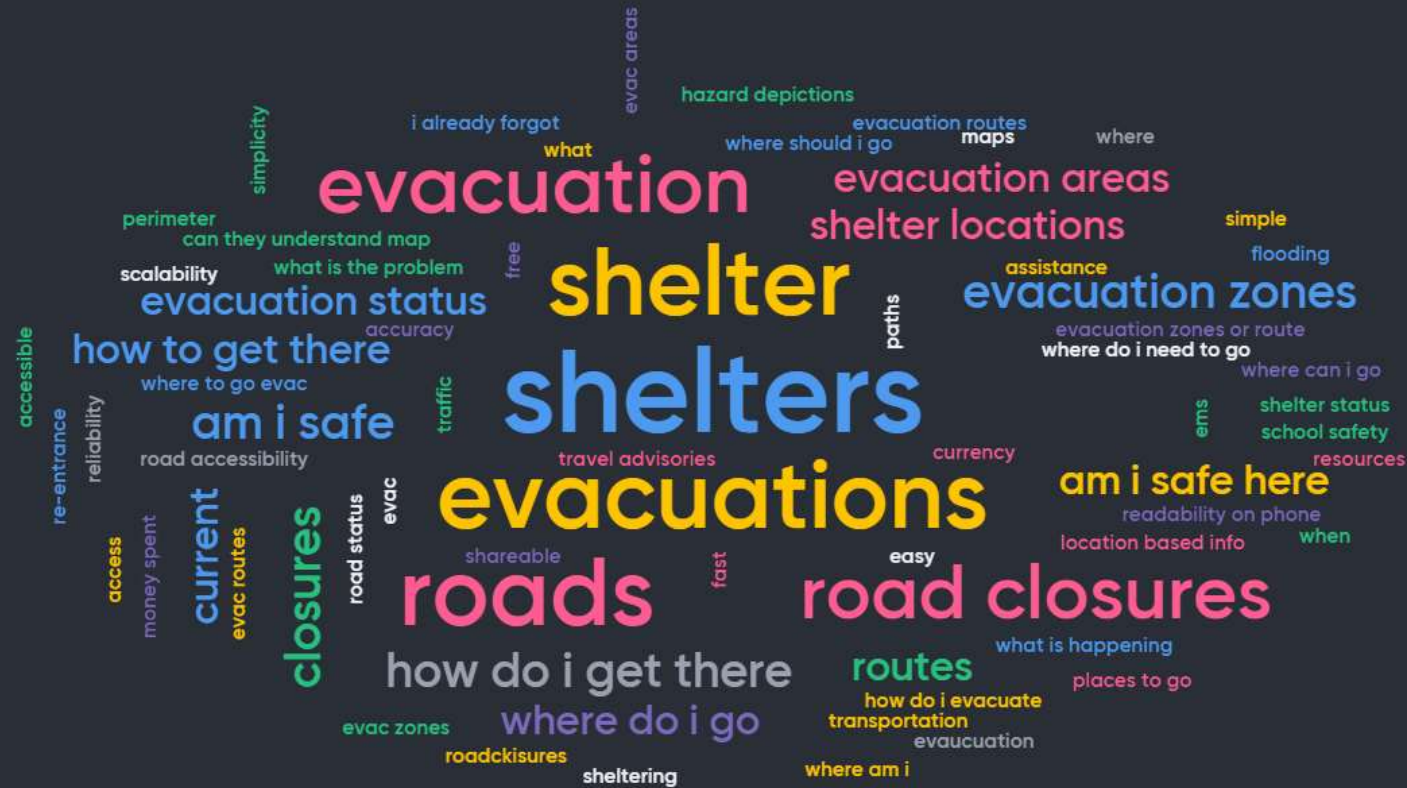
WEBINAR RECORDING
SLIDE DECK
TECH INNOVATION WEBSITE (PROTOTYPE)

On December 10th, 2019, NAPSG Foundation held its fifth PrepTech Talk titled "Situational Awareness for the Living Room: Cracking the Code on Public Information Maps". This virtual seminar provided participants the opportunity to hear from Sonoma County, CA, on the development of their Public Information Map Game Plan, and learn best practices identified in public information mapping as part of NAPSG's Technology Innovation for Flood Preparedness & Operations initiative supported by the DHS Science and Technology Directorate. The feedback from this event indicates that the Community would like more guidance on public information maps, so look out for future PrepTech Talks and other opportunities on this topic!

https://www.napsgfoundation.org/resources/situational-awareness-for-the-living-room/

NAPSG Foundation

Core Information Needs

What is a Geospatial Game Plan?

- Start with <u>identifying your team</u>.
  - The Public
  - First Responders
  - Emergency Managers
  - GIS Specialists
  - Local Weather Office, etc.

- <u>Identify core information needs</u> for your audience.

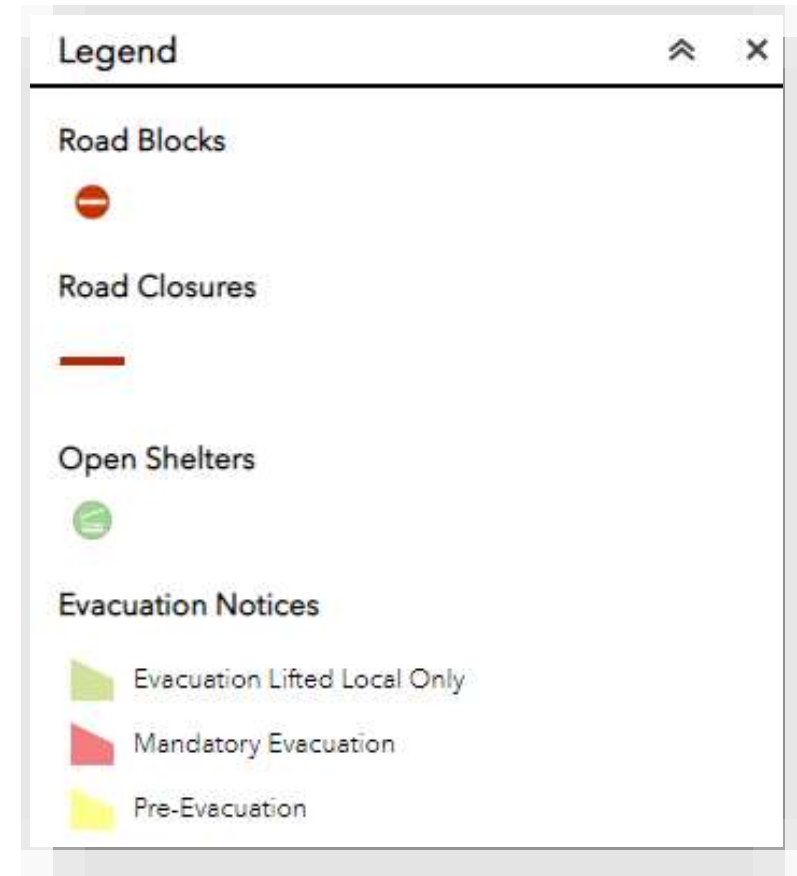- <u>Develop a game plan</u> for addressing those information needs. Test it. Refine it.
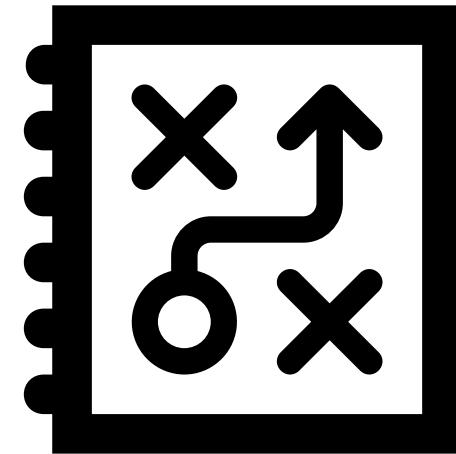
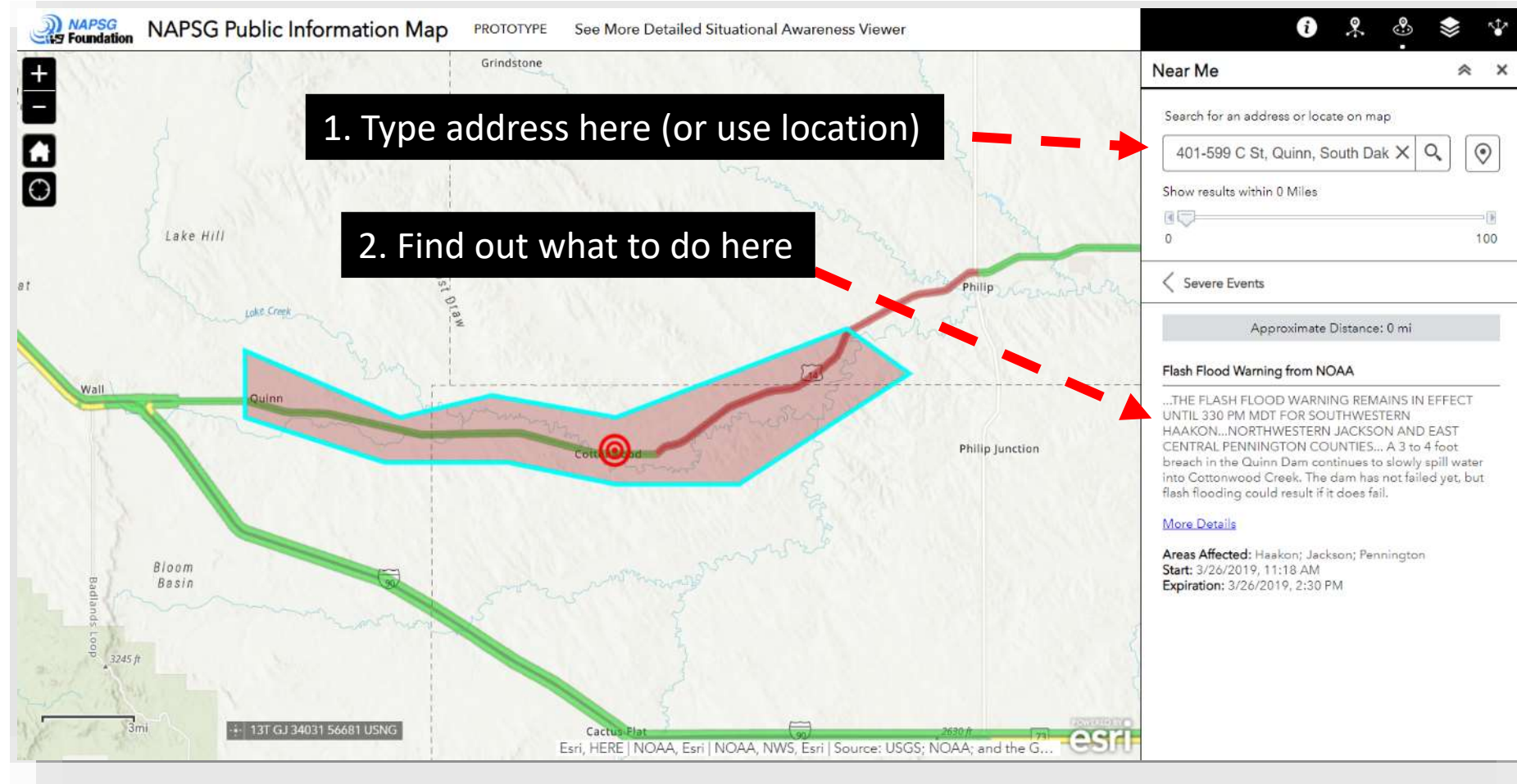*The geospatial game plan can be a chart, document, whiteboard, website or any other medium that makes sense to your organization.*

Core Information Needs

- Evacuation Status

- Open Shelters

- Road Status

and *if possible*, the hazard location

Why Use Interactive Maps?

- Easy to understand*
- Up to date
- Spatially explicit information

Hands-On Activity

Go to www.menti.com and use the code 77 86 24

Your Work

19
GIS Specialist

27
Public Information Officer

8
Emergency Manager

15
First Responder

10
Other

Choose An Alert for the Public

Message A

From Redlands Fire Department:

WILDFIRE EMERGENCY located in Calimesa, moving toward Redlands, CA. Wildfires can cause injury/death, burn down homes/other structures.

If you are receiving this message EVACUATE NOW. Do not delay to pack belongings.

Check_____ for updates and map link: {links to website}

Message B

Fast moving brush fire, rapid rate of spread, near Calimesa, moving east, structures threatened. Evacs in the area of Redlands. If nearby, evac now. Follow local authorities for updates. From Redlands FD.

Choose A Message for the Public

Message A — 63

Message B — 16

Your Work

- GIS Specialist
- Public Information Officer
- Emergency Manager
- First Responder
- Other
- Unknown

79

Foundation

Wireless Alerts for Wildfire

FIRE ADAPTED COMMUNITIES LEARNING NETWORK

ABOUT   CONNECT   BLOG

Planning for Wildfire:
Tips for creating
360-character Wireless
Emergency Alert templates

MAY 07, 2020

Planning for Wildfire: Tips for creating 360-character Wireless Emergency Alert templates

Tip #1: Include specific content in a set order

Tip #2: Avoid unclear statements, acronyms, abbreviations, and jargon

Tip #3: Use simple and familiar language

Tip #4: Accurately depict severity, urgency, and certainty

Tip #5: Use CAPITAL LETTERS to increase attention

Tip #6: Make the message personal

https://fireadaptednetwork.org/planning-for-wildfire-tips-for-creating-360-character-wireless-emergency-alert-templates/

NAPSG Foundation

Choose A Map for the Public

**Map A
Static**
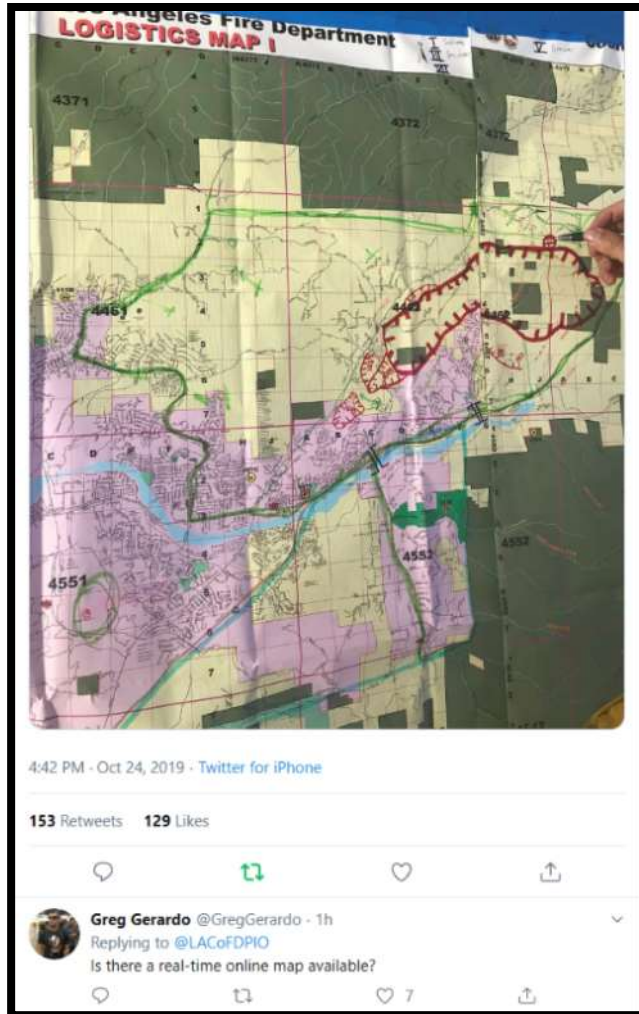
Map B Dynamic
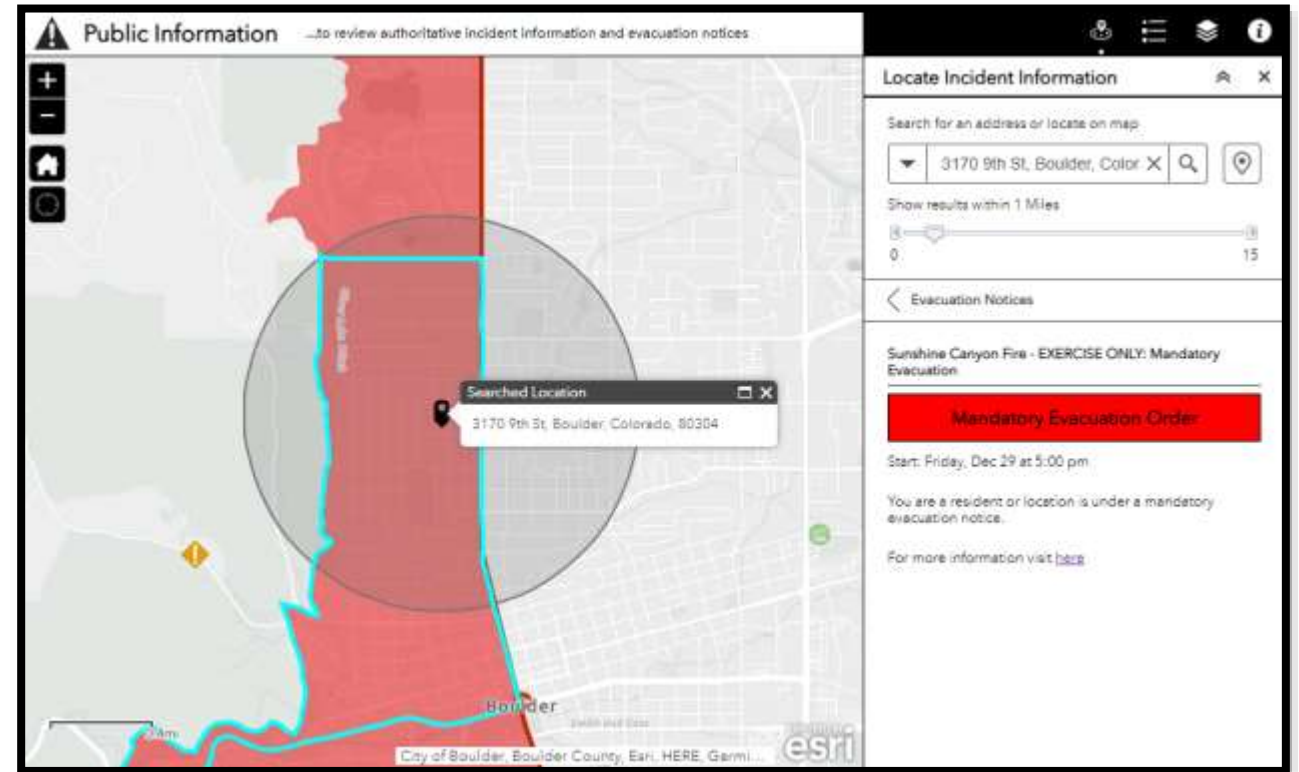
NAPSG Foundation

Choose A Map for the Public

Your Work

- GIS Specialist
- Public Information Officer
- Emergency Manager
- First Responder
- Other
- Unknown

1
Map A

76
Map B

77

Foundation

Static Maps...difficult to update once shared

- Once you share a screenshot or static list of placenames, it cannot be unshared

- Tweets and Facebook posts often get reshared hours or even days later!

- Dynamic maps and websites are great resources that can be updates easily even after sharing.
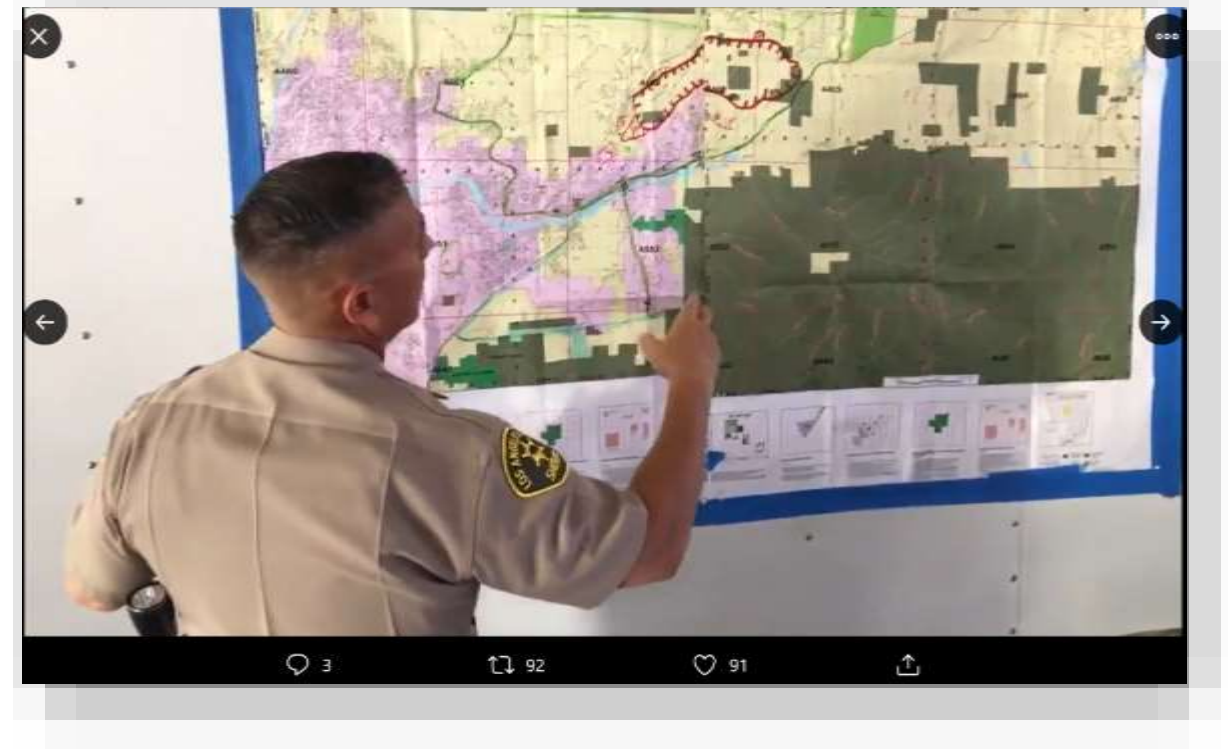
Examples shown in slides are not meant to be critical of agency or personnel

Vignettes from the EOC

Key Questions for Presenters

- What did you have in place with regards to "Public Info Game Plan" prior to COVID-19?

- What has worked in the past?

- What has not worked so well?

- What adaptations are in place now for COVID-19?
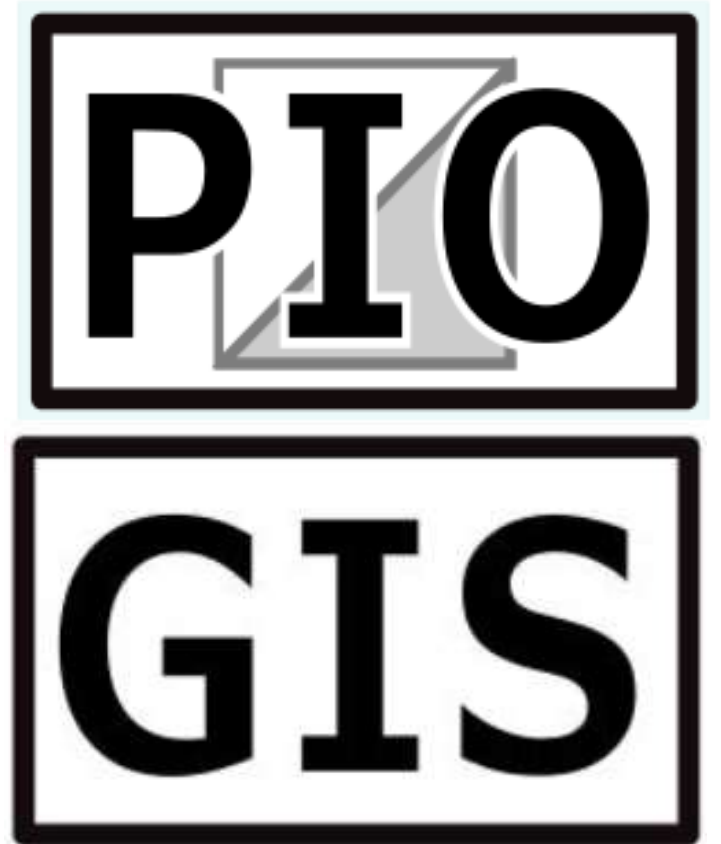
City of Nashua, NH EOC

Justin Kates, Director of Emergency Management at City of Nashua, NH

KatesJ@nashuanh.gov

Public Info Preparedness

- Crisis Communications training for all key staff
- Our plans focused around the Joint Information Center model
  - Never practiced until COVID-19
- Utilized many of the Esri Emergency Management Solutions templates to prepare public info maps
- **Weakness:** Emergency Management was seen as the default PIO during incidents
- **Strength:** Emergency Management had experience using GIS to enhance public info

Primary Hazards & Application of GIS for Public Info

- **Most Frequent Hazards**
  - Winter Storms
  - Severe Storms
  - Flooding
  - Special Events
- **Public GIS Messaging**
  - Status of road conditions/closures
  - Status of critical services
  - Crowdsourced (social media) reports (downed trees, poor road conditions, flooding)
  - Protective actions (shelter-in-place and evacuations)
  - Business status
  - Power outages (challenging)
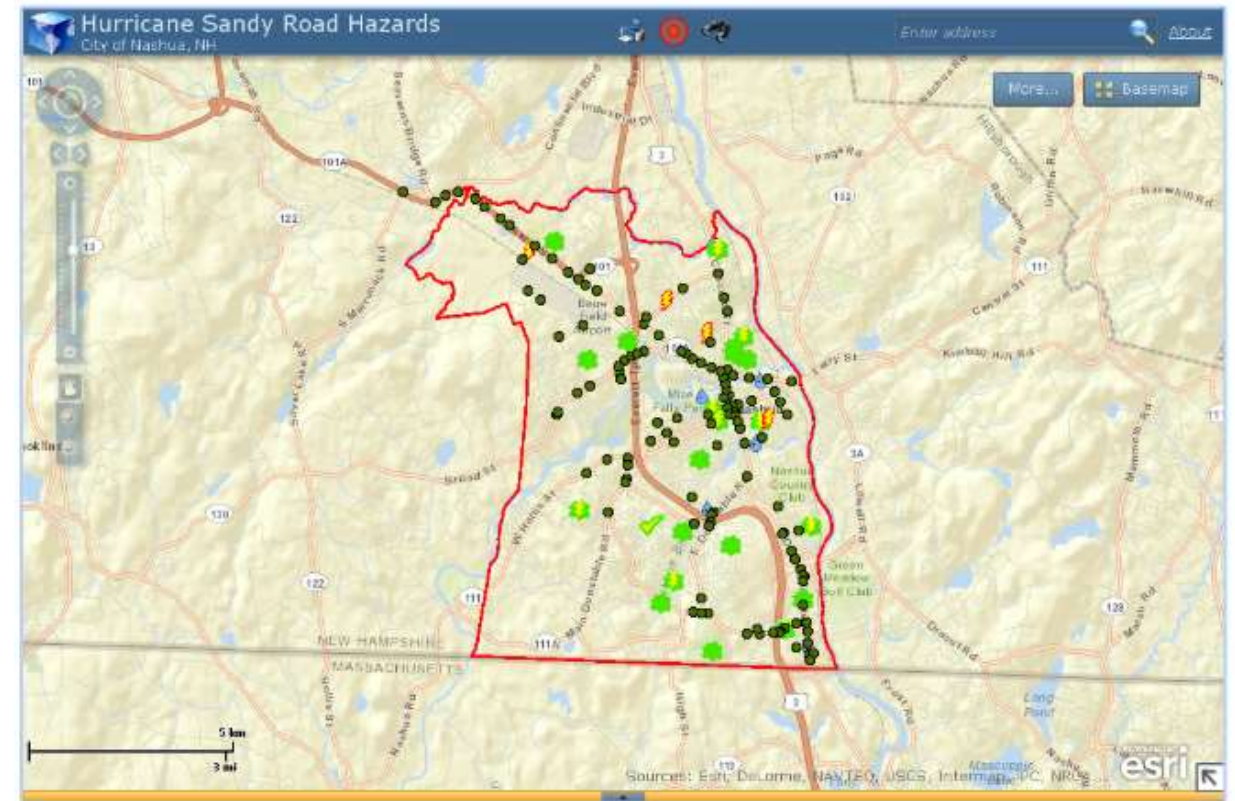
Rule of Thumb: If the info you are trying to get to the public has a location attached to it, it probably should be on a map.

Challenges

- **Workflows** - build processes and systems that are used daily by public communicators
  - Example: Systems used for permitted road closures should be used for emergency closures
- **Public Info Integration with Work Orders** - If data is being collected to create work orders, think through integrations
  - Example: Tree down in work order system should trigger display on public info maps. When tree is cleared, should also clear on public info map.
- **Mapping from PIO perspective** - Sometimes GISers make overly-complicated maps. Have a professional communicator help with the design
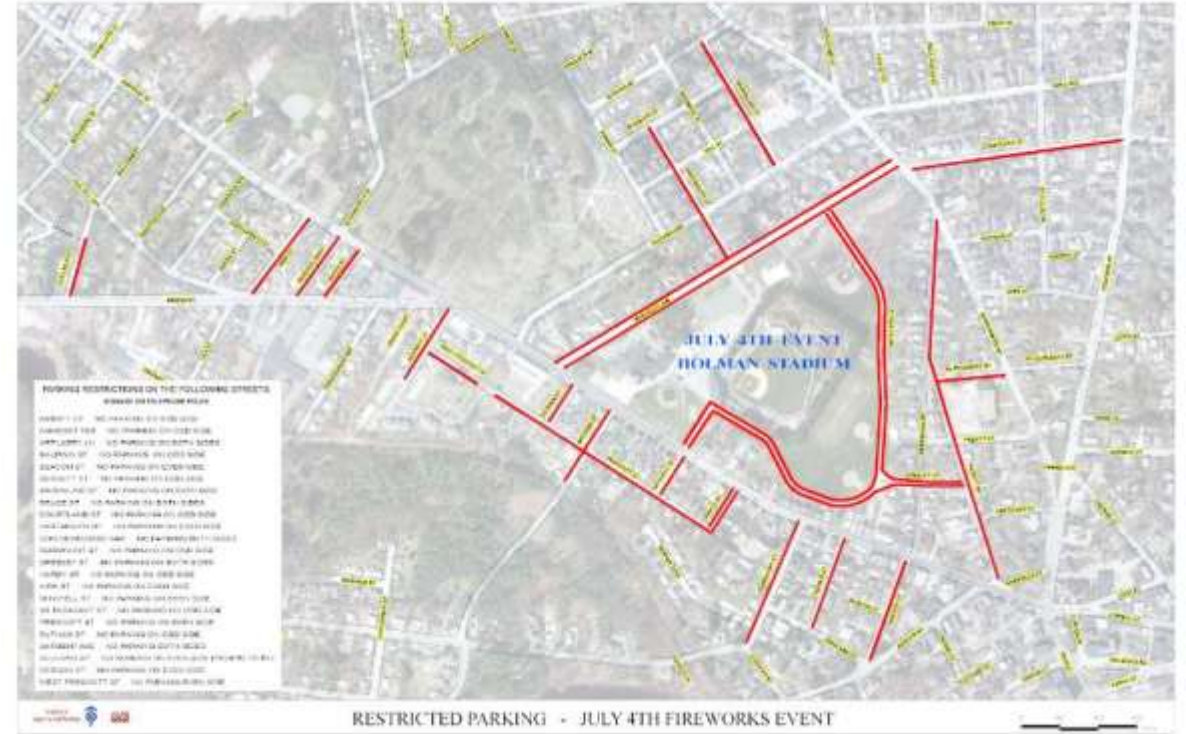
COVID-19 Response

Primary Concerns

- Locations of services for public
  - Testing
  - Medical Care
  - Food distribution
- Status of businesses and services
- Enforcement of "Stay at Home" Guidelines

Lessons Learned (so far)

- Embed a GIS representative in the Virtual Joint Information Center
- Don't create multiple "landing pages" for COVID info (i.e. COVID website, Esri Hub, data dashboard, etc.)
- Crowdsourced data vs. static data

Questions

- Justin T. Kates, CEM
- Director of Emergency Management
- City of Nashua, NH
- katesj@nashuanh.gov
- 603.722.0288 | @kb3juv

Resource: Business Status Reporter

https://www.napsgfoundation.org/resources/business-status-reporter/
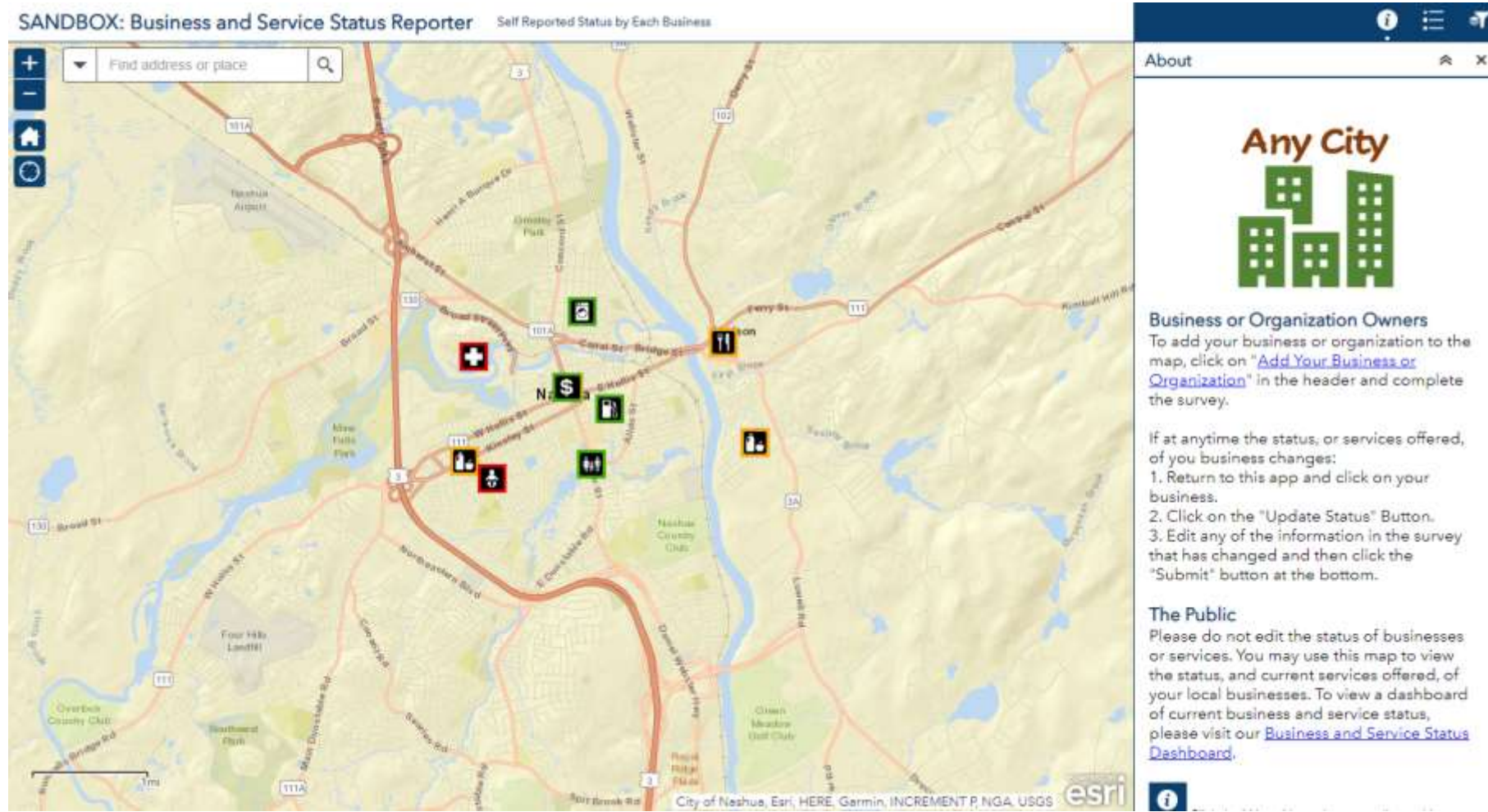
Resource: Crowdsourcing Toolkit

https://www.crowdsourceem.org/home

Douglas County, CO EOC

Joel Hanson (GIS) and Lauren Childress (PIO)

Lauren Childress

Lead PIO
Douglas County Sheriff's Office
lchildress@dcsheriff.net

Joel Hanson

GIS Services Manager
Douglas County
jhanson@douglas.co.us

DOUGLAS COUNTY
COLORADO

What procedures does the Douglas County Sheriff's Office PIO have in place?

- The Sheriff's Office PIO team consists of 1 full-time PIO and 4 on-call PIOs.

- All incidents occurring during normal business hours are handled by the PIO unless unavailable. On-call PIOs handle after-hours issues.

- It is the responsibility of the Sheriff's Office PIO to report on any public safety concern (public health concerns are not within the Sheriff's Office jurisdiction).

- Responsibilities: Press releases, press conferences, IMT/EOC, social media with regards to major incidents (usually a combined effort).

DOUGLAS COUNTY
COLORADO

- Our Office of Emergency Management has our GIS & PIO ESF stations located adjacent to each other
  - Readily promotes communication back/forth between the personnel
- Our Comprehensive Common Operational Picture (C-COP)
  - A situational awareness viewer(s) used in our EOC
  - Used by all ESFs including PIO

C-COP Application

DOUGLAS COUNTY
COLORADO

- A dedicated **DCSO Information Application** that can be used by our PIO
  - More informative, Variety of Information
  - Timely – stays synced with data in EOC

Old Way: Google Map Insets
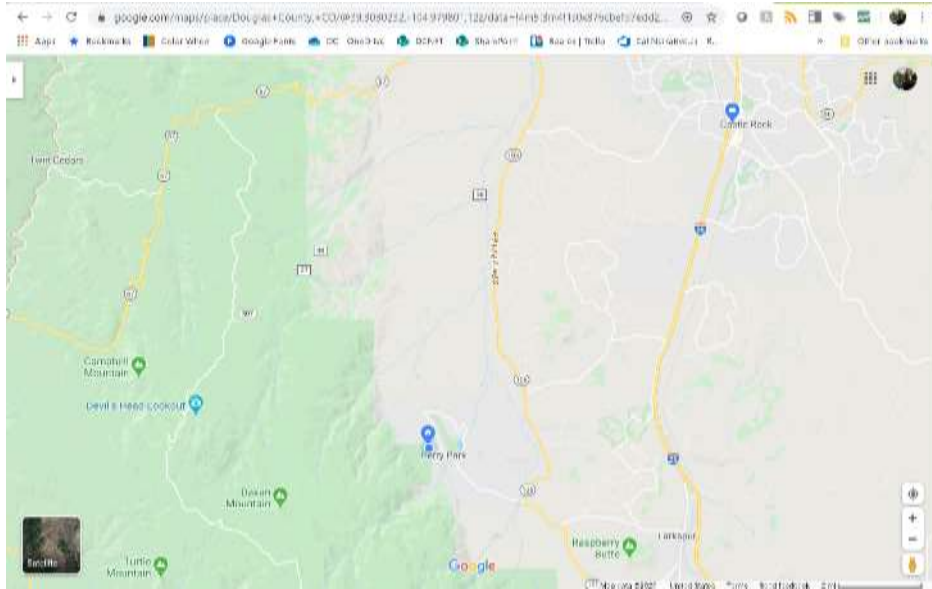
New Way: ArcGIS Online Hosted Application
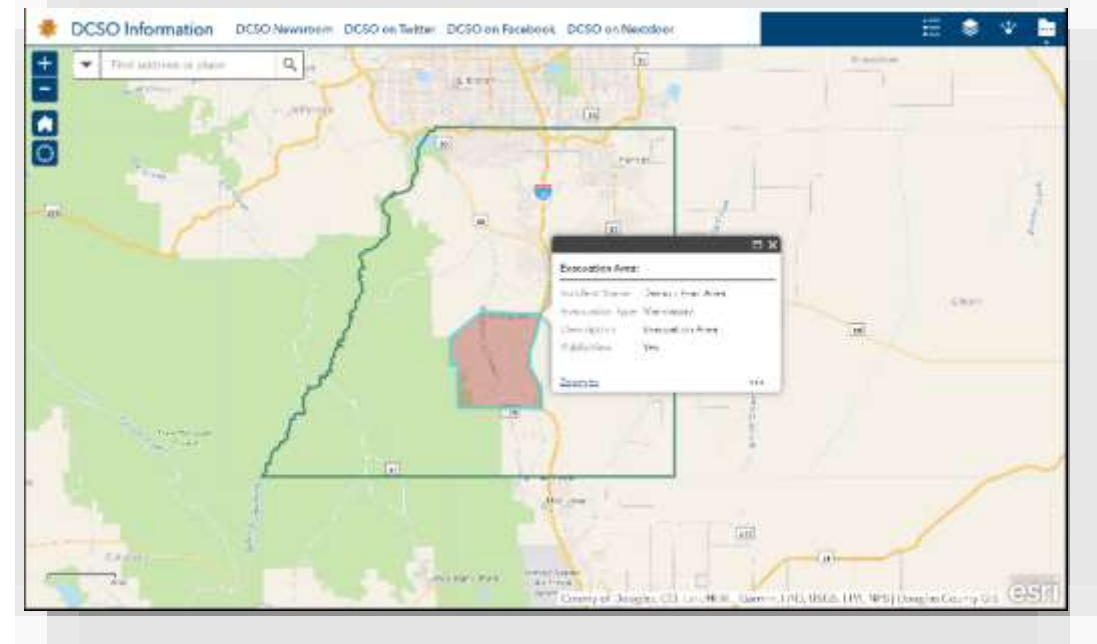
What has changed as a result from COVID-19?

- **Honestly, not much regarding PIO & GIS…**
  - Our PIO and GIS continue to work together
  - COVID was **not** a Public Safety issue so it quickly bypassed our PIO
  - Our Health Department took the lead – our Public Affairs and GIS took on a supportive role – passing communication as necessary.
  - GIS Stood up Dashboards & Hubs to consolidate & disseminate authoritative information

Public: COVID-19 Response Hub
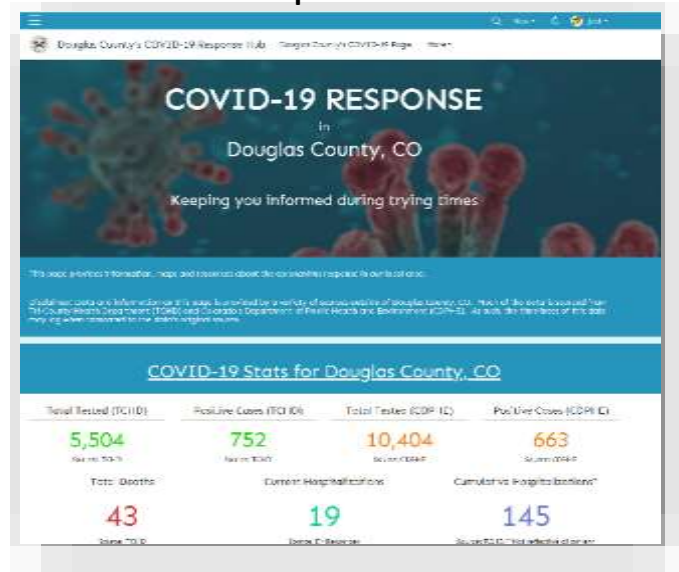
Internal: COVID-19 Operational Hub

Resource: Esri User Story

USER STORY

Douglas County Deploys Dual COVID-19 Hubs to Inform and Safeguard the Local Community

Douglas County, Colorado, is using a new geographic information system (GIS) hub solution to help keep residents well-informed and safe against the coronavirus disease 2019 (COVID-19) outbreak.

The county's GIS services team is leading an effort to increase awareness of the emerging threat statewide, including to the 360,000 residents in their community. They are doing so with help from a new disaster response solution from Esri, which has served as a template to configure and deploy a variety of GIS solutions. This includes the creation of the COVID-19 Response Hub for the public and the internal COVID-19 Operational Hub for ongoing county operations.

"We're here to make a difference in the lives of the residents within our jurisdiction, and that's shared across our entire region of partner agencies," said Joel Hanson, Douglas County's GIS services manager. "When you work in government, as we do, you have a commitment to service. We are committed to our residents, providing better information for the greater good to help keep them safe and informed."

https://www.esri.com/en-us/landing-page/industry/government/2020/douglas-county-case-study

NAPSG Foundation

Resource: IACP PIO Website

https://www.theiacp.org/working-group/section/public-information-officers-section

PIO Best Practices and Tools

NAPSG Foundation

Build Your Team

Game Plan!

Identify Core Info Needs

Forecast

Warnings

Early Reports

First Responders

Damage Assessment

MEDIA

USAR
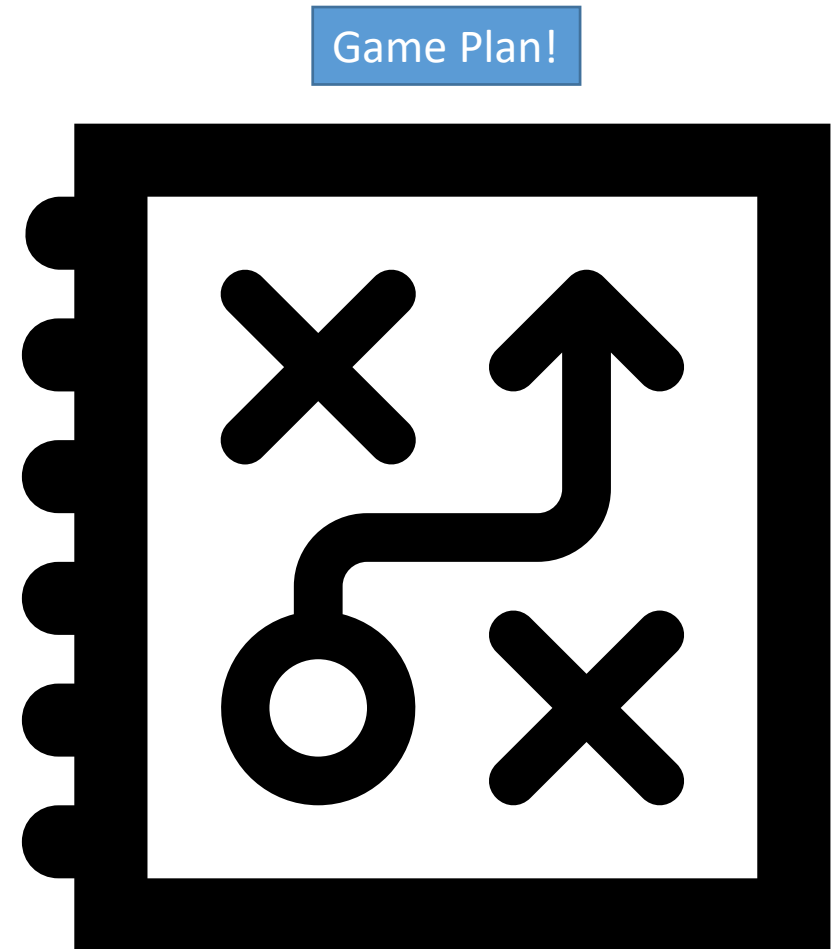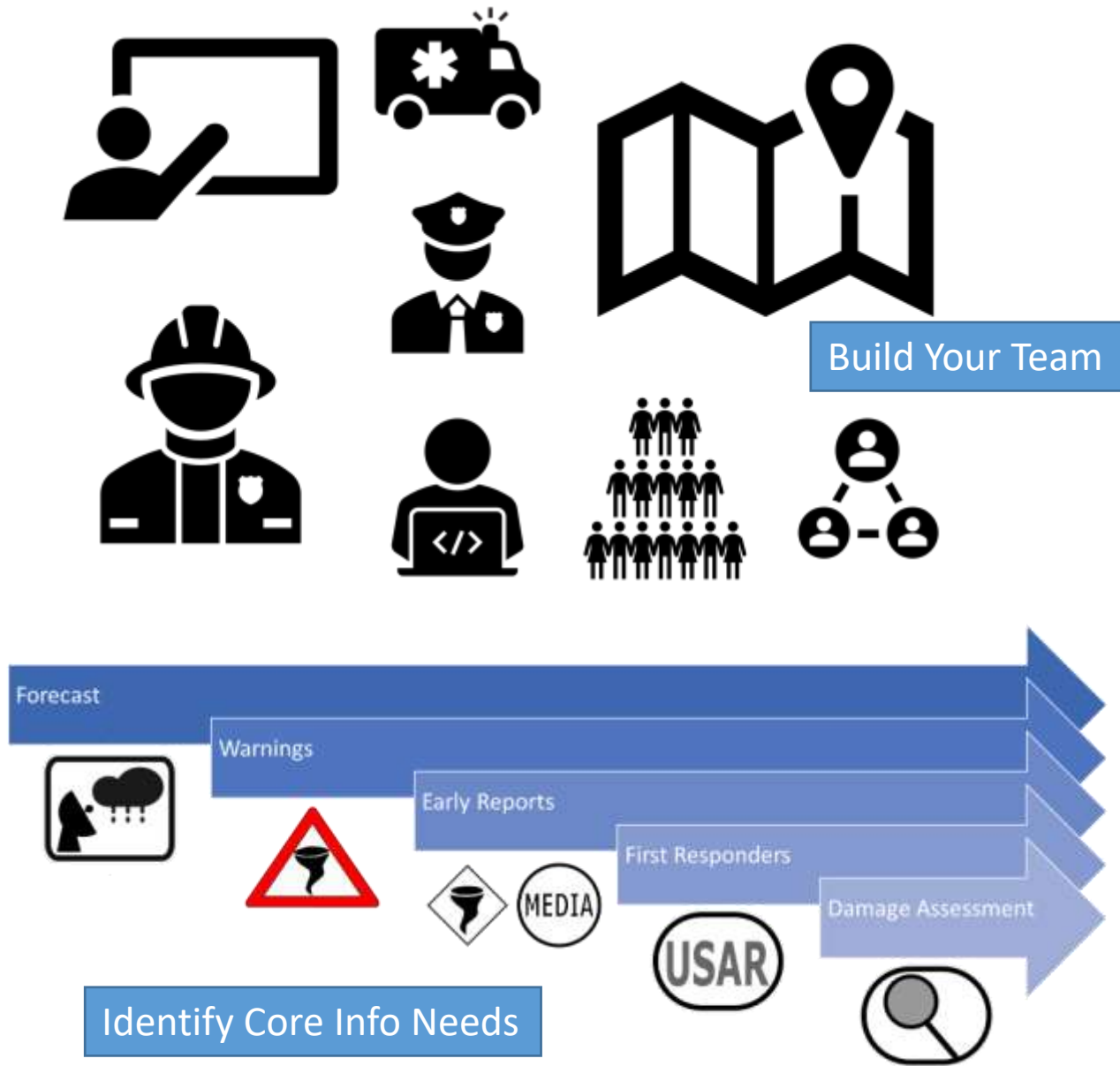
Operational Game Plan

Lifeline	Core Information Need	Public	First Responders	Emergency Managers	Operational Game Plan
Safety and Security	Evacuation Status	Am I safe here?	What areas need to be evacuated?	What areas have been evacuated? Where do people need assistance?	Sherriff's Office hand-draws evacuation zones and GIS Specialist updates the layer using pre-designated zones. Alerts are shared via WEA and social media with link to Public Information Map.
Food, Water, Shelter	Shelter Status	Where can I go to be safe?	Where do I take evacuees?	Where are the evacuees? What are their needs?	Mass Care lead changes the status of shelters and edits attribute information (e.g., number of people, capacity, etc.) as needed.
Transportation	Road Status	How can I get there?	How do I get to those in need?	What is the status of transportation systems?	Public Works provides internal feed of road status, GIS Specialist updates the layer.

NAPSG Foundation

Technical Best Practices

1. Simplicity
2. Scalability
3. Security
4. Smartphone
5. Shareable
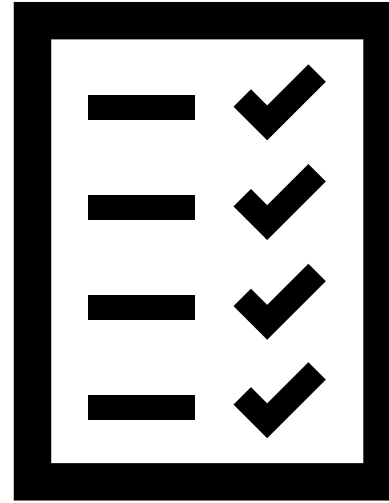
Covered in more detail on the PPT held on December 10th, 2019 – see webinar and slides.

1. Simplicity – 3 Core Information Needs for the Public

1. Am I safe here?

2. Where can I go?

3. How can I get there?

During the response phase, we have found that agencies that focus on the core or essential information needs are the most successful in engaging the public.

2. Scalability

- Do not host data on internal servers!

- ArcGIS Online Cloud Hosted layers are scalable and you do not pay per view.

ArcGIS Online

Best Practices for High Demand/Viral Apps

Sharing and Collaboration | Kelly Gerrow-Wilcox
September 13, 2018

updated from an article published March 2017

News Flash! ArcGIS Online users make great Apps that are used to inform and engage the public about important and interesting geospatial topics. Apps hosted on ArcGIS Online are easily shareable and can receive hundreds of thousands of views in a short amount of time. ArcGIS Online scales to meet the demand of your application, making it easy to create and share applications that may receive a high demand of requests (1000s of request per second) from your users.

Consider a natural disaster, where apps are created to inform the public of evacuation zones and shelters. These apps may receive hundreds of thousands of views in a matter of days, receiving a high amount of web traffic. In order to ensure that these apps are performing at their best under high demand, consider these best practices for layer management, so ArcGIS Online can handle the rest.

[Documentation](#)

3. Security

Hosted Feature Layer Views
- Internal Editing
- Public Viewing of LIVE Data
- Secure filter of features and attributes
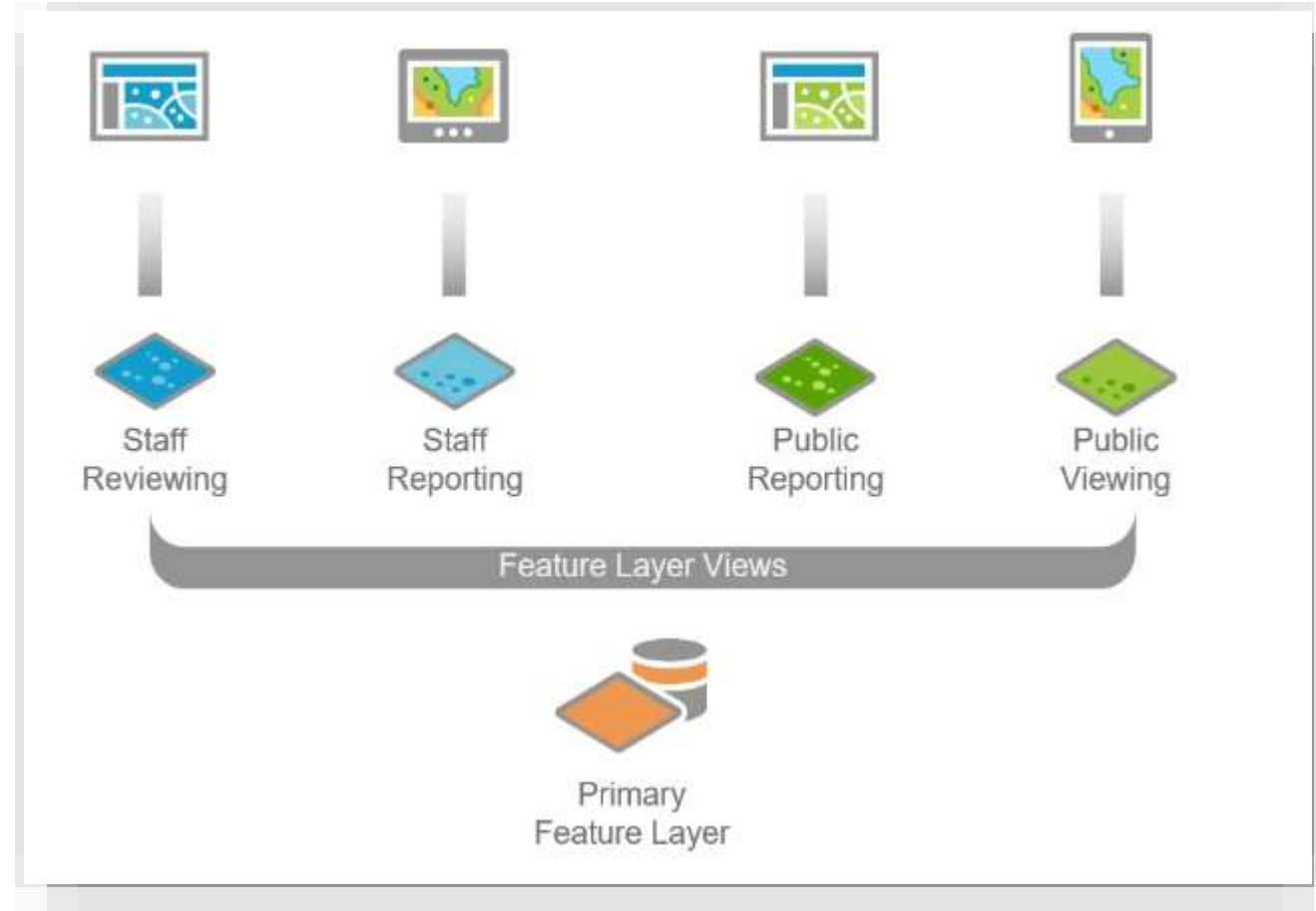
Blog: Getting Started with Hosted Feature Layer Views

4. Smartphones - Mobile Responsive

+70% of public are reading the news on their mobile devices!

Your maps need to work on mobile in order to be effective.

Rapid growth since 2013 in portion using mobile to get news; desktop/laptop usage holds steady

% of U.S. adults who ever get news on ...

Mobile / Desktop/laptop
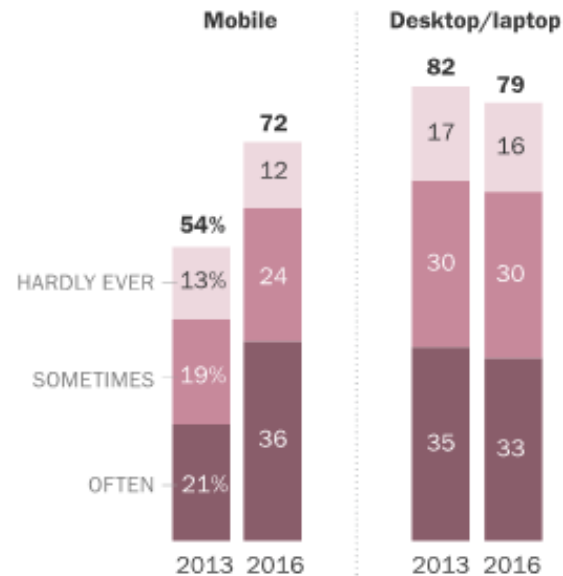
Among people who get news on both, more prefer mobile

66% get news from both mobile and desktop/laptop

Of those ...

56% Prefer mobile

42% Prefer desktop/ laptop

Source: Survey conducted Jan. 12-Feb. 8, 2016. "The Modern News Consumer"

PEW RESEARCH CENTER

www.responsinator.com

NAPSG Foundation

5. Shareable

- Share them via alert messages
- Embed in emergency management websites
- Share via Social Media
- Record video briefings
- Use at Public Meetings
- Double check all the layers, web maps, and apps are shared publicly!

5. Shareable

http://youtu.be/u5TGUYNY8_s?hd=1

What is a Geospatial Game Plan?

- Start with <u>identifying your team</u>.
  - The Public
  - First Responders
  - Emergency Managers
  - GIS Specialists
  - Local Weather Office, etc.
- <u>Identify core information needs</u> for your audience.
- <u>Develop a game plan</u> for addressing those information needs. Test it. Refine it.

Sandbox for Testing Public Info Maps

https://techinnovation-napsg.hub.arcgis.com/

Take Action! What's Next?

Build Your Geospatial Game Plan

https://bit.ly/2TuArcY

PrepTech Talks

InSPIRE Innovation Summit for Preparedness & Resilience

https://www.napsgfoundation.org/events/

"Open Community Forum: COVID-19 Response Hot Wash" -
currently slated for June 23 and 25, 2:00-3:30pm ET on both days.

EM Geo Forum: Tornado Readiness and Resources

- **Tomorrow**, Thursday, May 28th, 2020 from 2:00 PM to 3:00 PM ET

- Virtual seminar to learn about building a geospatial game plan for tornado readiness, response, and recovery.

- View more event details & Register

Additional Resources

Public Information Officer (PIO) Training

- IS-29 – Public Information Officer Awareness

- G290 – Basic Public Information Officer

- G291/E-L0387 – Joint Information System/Joint Information Center Planning for Tribal, State and Local PIOs

More information https://training.fema.gov/programs/pio/

Additional General PIO Resources (Justin Kate)

National Response Team Joint Information Center Model:
https://www.nrt.org/sites/2/files/NRT_JIC_Model_automated_062013%20v2.pdf

USCG PIO Job Aid: https://homeport.uscg.mil/Lists/Content/Attachments/2916/IC_Job_Aid-Apr-15.pdf

77 Questions Most Frequently Asked by Journalists in a crisis:
https://static1.squarespace.com/static/54eba205e4b032bc08383d3f/t/562efe3fe4b022e56e721fd3/1445920319578/CC-77-questions-most-frequently+asked-by-media.pdf

Additional COVID19 PIO Resources (Justin Kate)

CDC Crisis & Emergency Risk Communication (CERC): https://emergency.cdc.gov/cerc/

CERC Manual: https://emergency.cdc.gov/cerc/manual/index.asp

Many templates: https://emergency.cdc.gov/cerc/resources/templates-tools.asp

This is a great resource from CERC: https://emergency.cdc.gov/cerc/resources/pdf/cerc_wallet-card_english.pdf

Effective Media Communication during Public Health Emergencies:
https://www.who.int/csr/resources/publications/WHO_CDS_2005_31/en/

Bloomberg https://www.bloomberg.org/program/public-health/covid-19-communications-module/

Core Information Needs – ArcGIS Online Group

https://arcg.is/iS8am

New Wildfire Feeds (IRWIN / NIFC)

https://www.esri.com/arcgis-blog/products/arcgis-living-atlas/public-safety/improve-your-wildfire-maps/

New Wildfire Feeds (Crowdsourced)

https://experience.arcgis.com/experience/d2933dba9fa64df1bddc016825b54e07

Crowdsourced Photos

2020 Disasters Crowdsourced Photos

Powered by NAPSG Foundation, URISA's GISCorps, and CEDR Digital Corps

Upload Photos:

2020 Disasters Crowdsourced Photo Uploader

This form allows volunteers and the public to upload on-the-ground photos of areas affected by disasters.

Upload a photo

Browse by Damage Level:

Damage Level Browser - Disaster Crowdsourced Gallery

Browse 2020 crowdsourced disaster photos by damage level. This map is filtered to only show the current event. If we are not activated, it will not show any photos.

Explore photos

Currently monitoring severe weather while supporting COVID-19 efforts.

NAPSG COVID Resources
GISCorps COVID Hub
CEDR Digital COVID Resources

https://2020-crowdsourced-disaster-photos-napsg.hub.arcgis.com/

Partner with Volunteer Social Media Experts
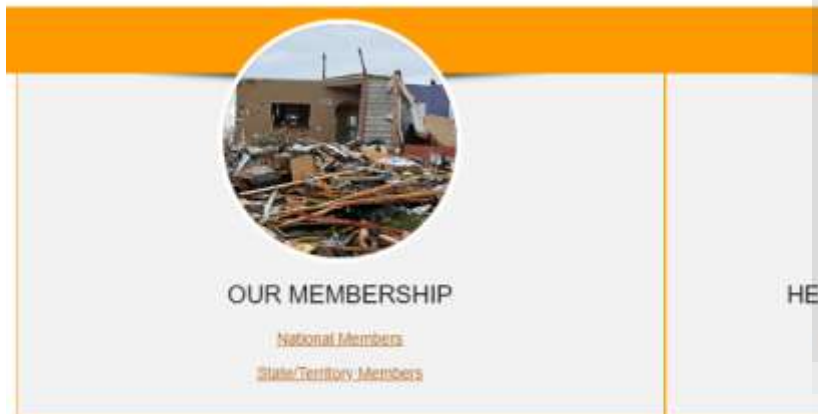
https://www.nvoad.org/

https://cedrdigitalcorps.org/

Making Content Accessible

- [ArcGIS Blog - Writing accessible story map content](#)

Questions

Submit your questions in the Q&A feature in Zoom

NAPSG
Foundation

Thank You!