New Braunfels Leverages Esri’s Flood Basemap to Improve Flood Response

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The Problems

- Flash Flood Alley
- Four water channels prone to flooding
- Reactive response efforts
- No predictive methods
- Response plan without GIS support
The Solution

- ArcGIS Platform Adoption
- Proactive approach to responses
- Flood modeling for prediction analysis
  - Evacuation
  - Rescues
  - Damage Assessments
Flood Inundation Model

Generated by Esri
Enhance all phases

- Mitigation
- Preparedness
- Response
- Recovery

Depth Grid
Response Plans
Web Apps
Flood Forecasting

- National Weather Service Forecasting
- Esri Flood Model
- Proximity Analysis
  - Response Plans
  - Web Apps
  - Dashboard
Flood Inundation Response Plans

- Identifies critical infrastructure for response and recovery operations
- Estimates damage assessment costs
- Guide for information pertinent to all phases the OEM
Asset Management Integration

Assets (Existing)
- Pavement
- Supports & Signs
- Stormwater Drainage

Assets (Future)
- Facilities
- Parks
- Fleet
Flood Viewer Web App

- Esri web app template
- Flood stage & water depth
- Proximity to critical infrastructures
Pro 2D/3D View
App Integration

- **Workforce**
  - Automated task creation from slices
  - Dispatch
  - Worker
- **Collector**
  - Workforce integration
  - Data collection
- **Dashboard**
  - Situational Awareness
Outcomes

- Configurable and scalable solution of the ArcGIS Platform
- Proactive approach to flooding events
- Enhanced emergency management phases
  - Mitigation, Preparedness, Response, Recovery
- Developed response plans to expedite
  - Evacuations and rescues
  - Damage assessments
- Deployed web apps
- Enhanced situational awareness
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