



Public Works Hazard Mitigation Planning

17th Annual Public Works Roundup

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What is Hazard Mitigation

“Hazard mitigation is the effort to reduce loss of life and property by lessening the impact of disasters.”



FEMA

Hazard Mitigation Plan (HMP)

- Developed/maintained by Office of Emergency Management
- Public Works Department
 - Participates in the plan development
 - Assists with plan implementation

Public Works Department

- Streets
- Stormwater/Drainage
- Signs
- Signals
- Water
- Wastewater

Hazards

- **Severe Winter Storms**
- **Severe Thunderstorms**
- **Tornadoes**
- **Lightning**
- Wildfires
- **Flooding**
- Drought
- Earthquakes
- Extreme Temperatures
- Hailstorms
- **Dam/ Levee Failures**
- Terrorism
- Pandemics/Epidemic Incidents
- Hazardous Material
- Energy / Fuel Shortage
- Aircraft Accidents
- **Multi-Hazards**

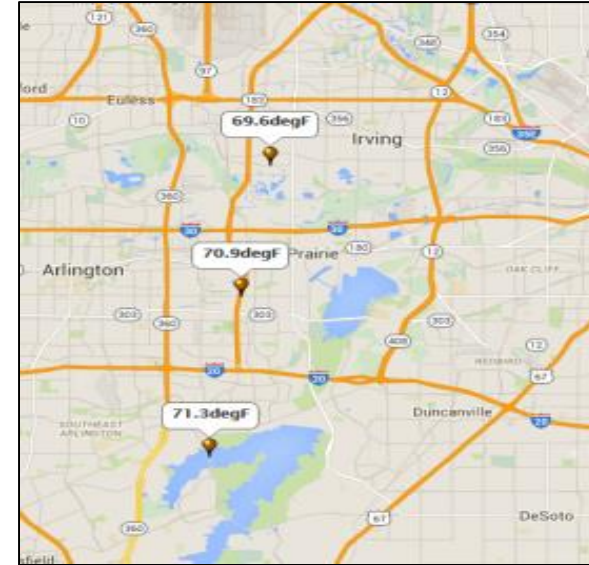
Severe Winter Storms

- 1 Snow Plow
- 3 Week supply of Ice Chat (man made aggregate material used for traction)
- 5 Day supply of Melt Down 20 (salt)
- Ice/temp sensors at 3 bridge locations



Severe Winter Storms Mitigation at Work

- Initiate 24-hr onsite road crews
- Monitor road temps/conditions
- Prep equipment
- Spray bridges
- Sand/salt bridges



Severe Thunderstorms, Tornadoes, and Lightning

- Install outdoor siren system
- Install full weather station
- Join PWERT (Public Works Emergency Response Team)
- Purchase debris removal equipment
- Confirm contract status for debris removal and monitoring assistance



Severe Thunderstorms, Tornadoes and Lightning – Mitigation at Work

- Assist with monthly testing of outdoor siren system
- Monitor full weather station performance and inspect twice a year
- Joined PWERT, 33 participating entities
- Purchased 4 grappling trucks and 1 Gradall with grappler



Flooding

HMP Mitigation Measures

- Update flood maps in GIS
- Maintain ditches, open channels, flumes, etc.
- Check hotspot locations
- Pre-position barricades and/or crew
- Maintain and monitor rain and stream gauge system

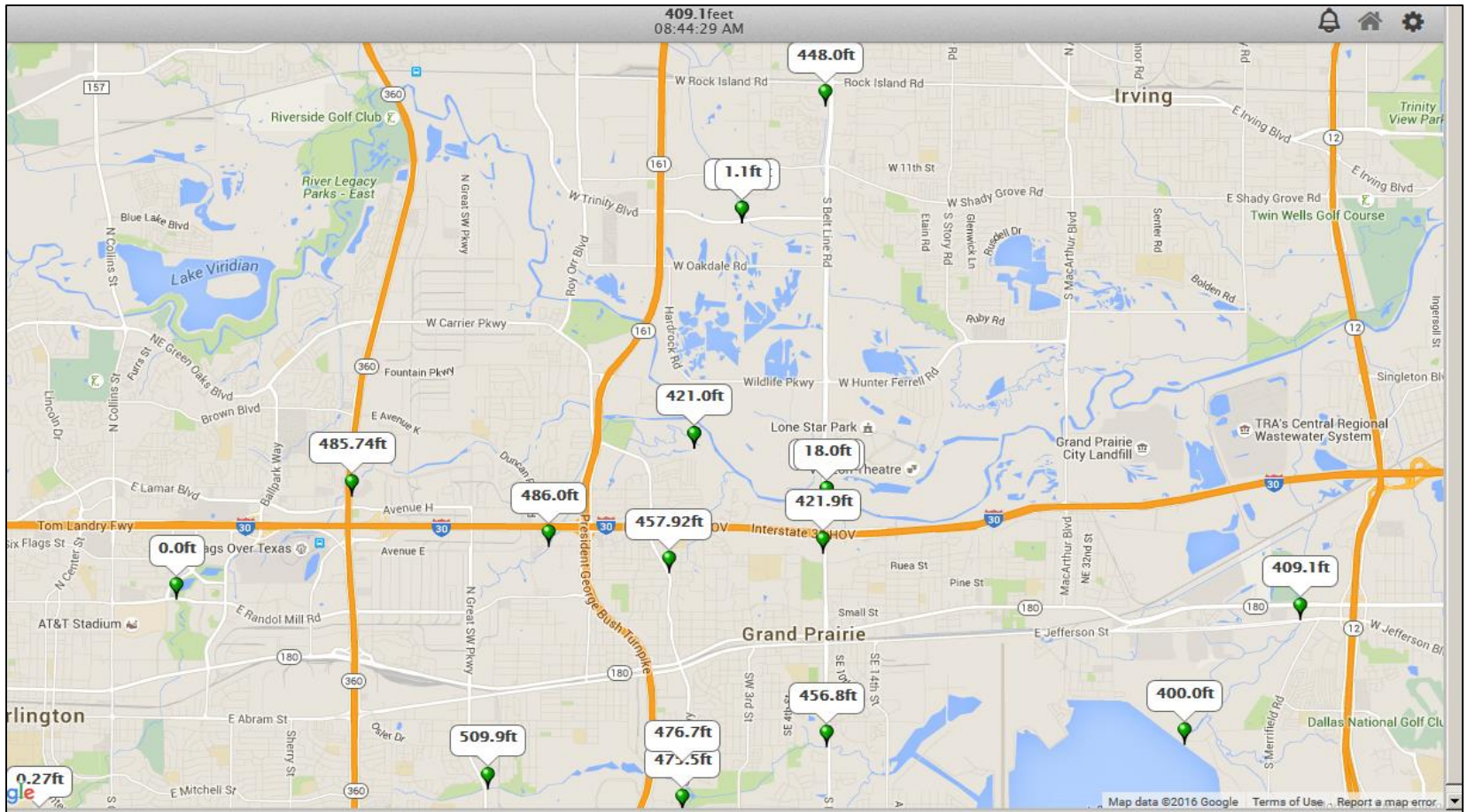


Flooding Mitigation at Work

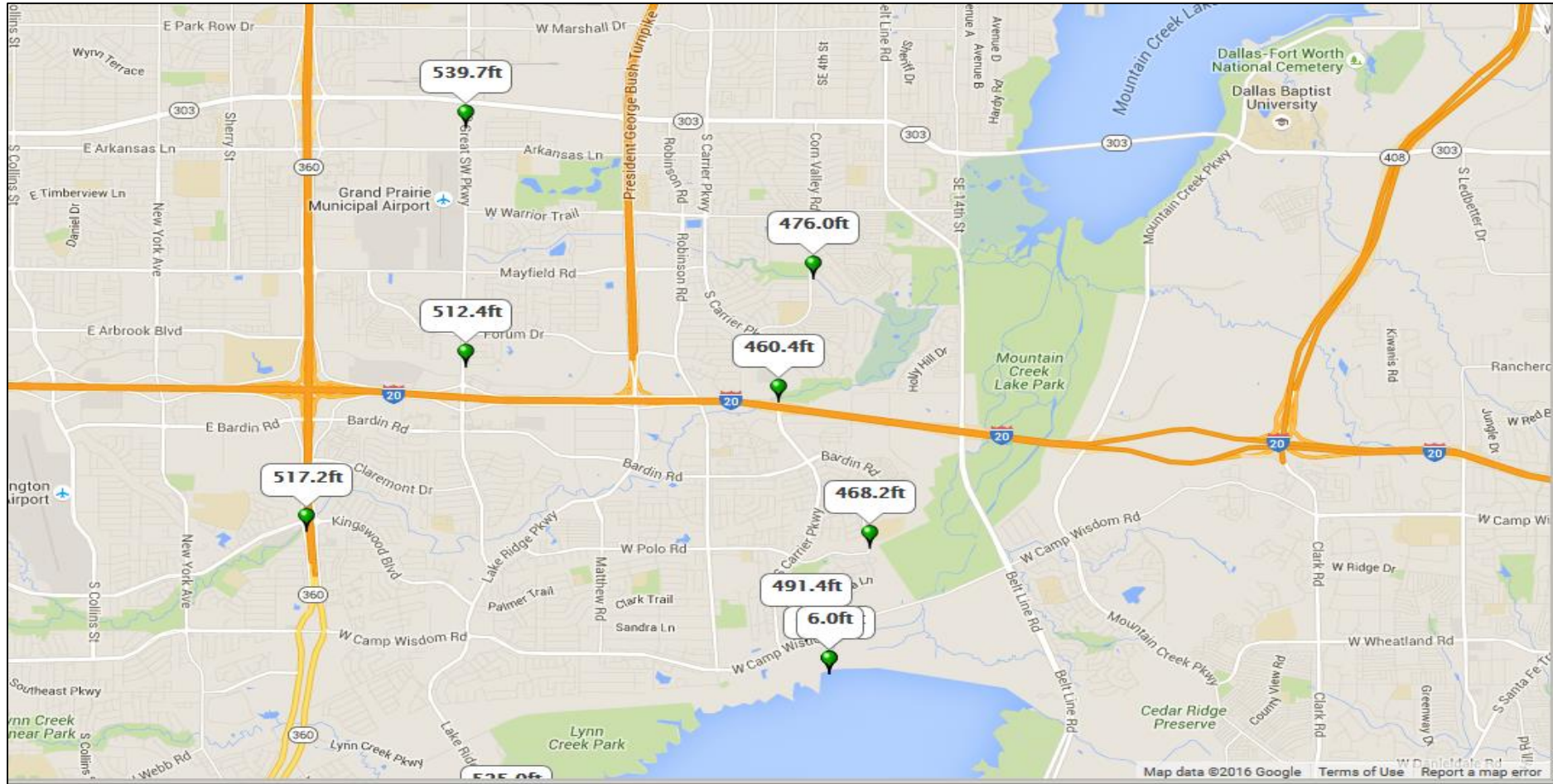
- 75 miles of ditches
- 10 miles concrete lined channels
- > 1/3 of City located in floodplain
- 62 hotspots
- 21 gauges



Flooding Mitigation at Work



Flooding Mitigation at Work



Dam/Levee Failures

- Maintains and oversees City-owned levees
- Annual training on Dam/Levee Failures



Multi-Hazards

- Maintains and deploys generator supply for running signal lights during power outages
- Participates in annual disaster exercises involving all response agencies and City Depts.
- Participates in training for City Dept. reps yearly on EOC procedures
- Participate in annual continuity of operations exercise for all City Departments

FUTURE MITIGATION PLANS

Future Mitigation Plans

- One Man Barricades and Sandbags
- Static Flood Warning Signs
- Automated Gates/Arms
- Cameras for Automated Gates/Arms
- Flood Siren with Stream Level Trigger
- Additional Low Water Flasher Systems
- Additional Stream/Rain Gauges
- Automated Gate Motors at Dorchester Levee
- Backup Generator Power for Pumps and Gates at Dorchester Levee

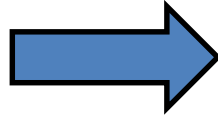
One Man Barricades



Static Flood Warning Signs



Automated Gates/Arms



Traffic Camera View



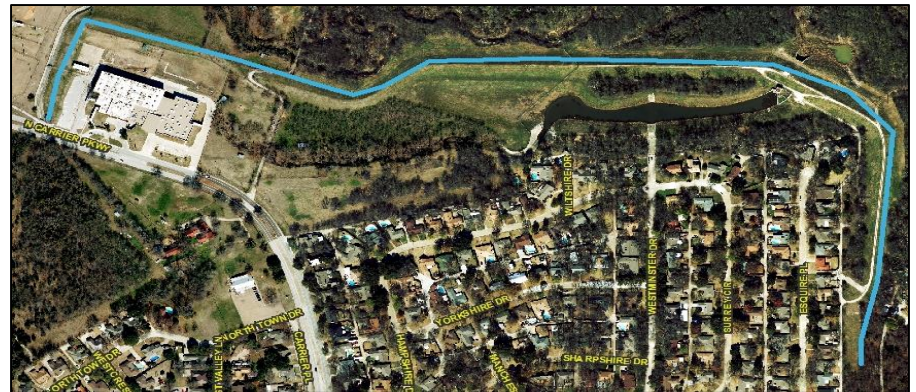
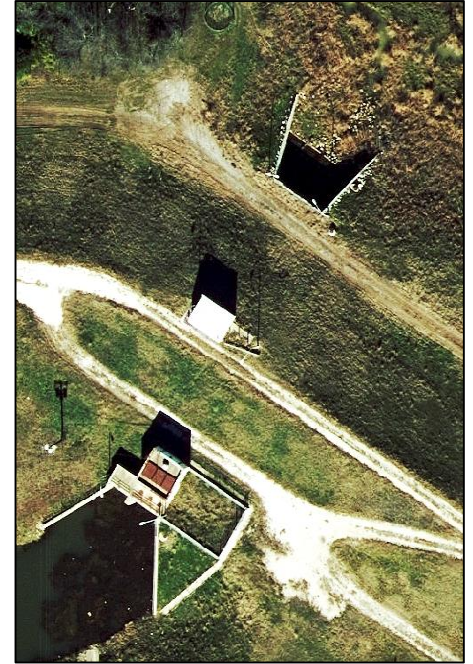
Proposed Flood Siren with Stream Level Trigger and Camera

- To include flood sirens, cameras and stream level sensors to anticipated flood evacuation area
- Potential areas
 - Willow Bend Mobile Home Park
 - Fox Hollow Apartments
 - McFalls Park
 - Dorchester Levee
 - Johnson Creek USACE project areas



Dorchester Levee

- Add automated gate motors at Dorchester Levee
- Add backup generator power for pumps and gates at Dorchester Levee



In Conclusion

- OEM to update HMP in 2016 from the 2011 version
 - Re-assessment of hazards
 - Re-assessment of what worked and did not work in the plan.
- Keep review the HMP yearly for major changes
- Update HMP every 5 years.



Questions?

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