Outdoor Warning System

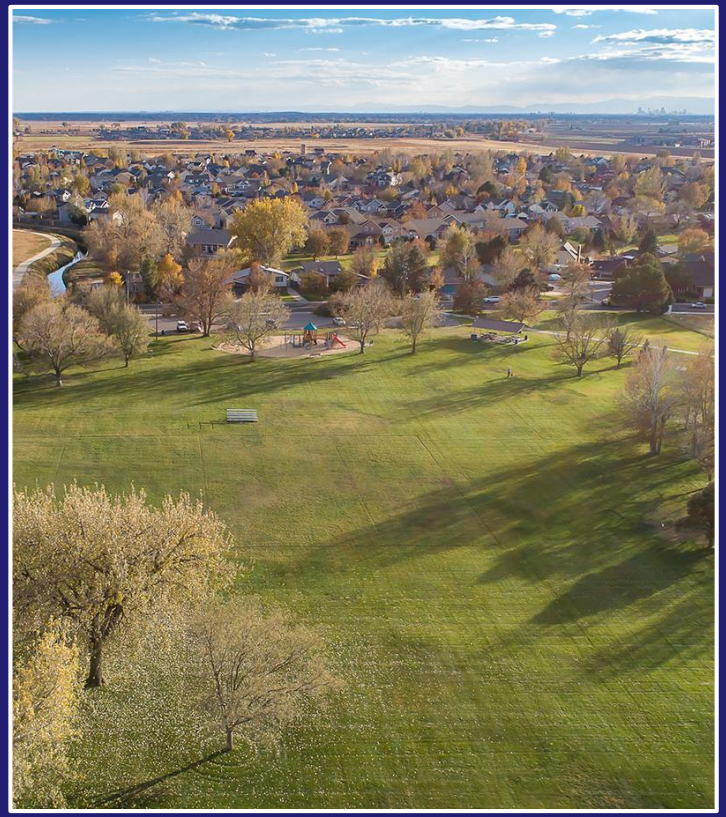
CITY COUNCIL MEETING – July 23, 2024

City Staff Representative: Matthew Domenico, Police Chief
Stephanie Hackett, Emergency Management Coordinator

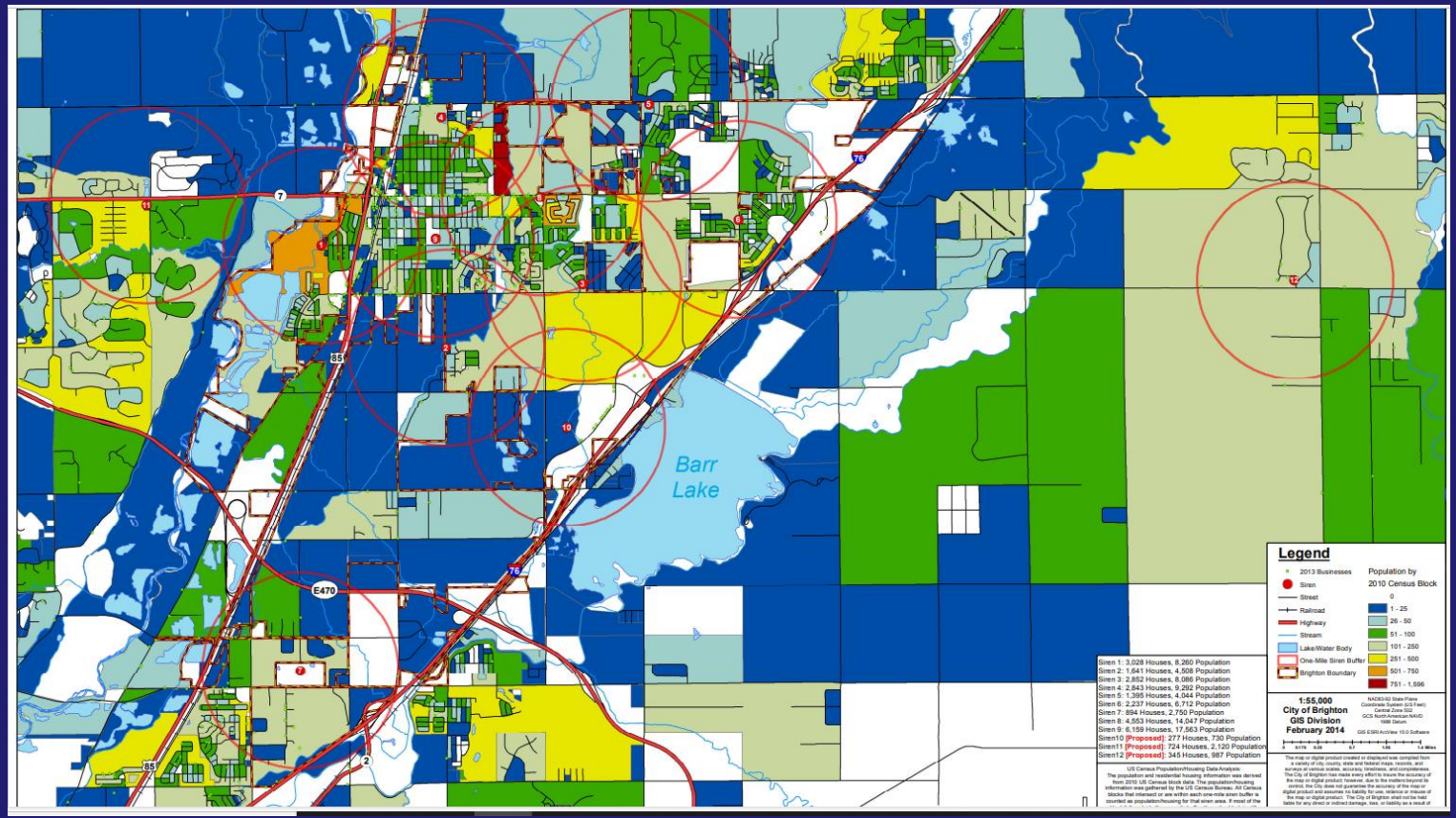
Department: Police and Office of Emergency Management

Brighton's Outdoor Warning System History

- First sirens installed in 2005, most recent unit installation in 2016
- Total of 12 sirens, 10 within city limits and 2 in the Brighton Fire District
- Solar powered, multi-directional units
- Intended purpose is to notify people who are outdoors that there is an imminent hazard and to seek shelter
- Sirens supported through cost sharing with Brighton Fire



Map of Siren Locations



Tornado Activity in Brighton

- No reports of death, injury or damage to property or agriculture due to tornadic activity since 1950 (per NOAA records).
- In the past 20 years, 10 tornado warnings have been issued by NWS to our area. One EF0 touchdown was reported in this timeframe in 2021.
- Both first responders and residents have reported distant sightings of tornadic activity in Weld County and the Eastern Plains.

EF SCALE	
EF Rating	**3 Second Gust (mph)**
0	65-85
1	86-110
2	111-135
3	136-165
4	166-200
5	Over 200

The Enhanced Fujita Scale or EF Scale is used to assign a tornado a 'rating' based on estimated wind speeds and related damage. When tornado-related damage is surveyed, it is compared to a list of Damage Indicators (DIs) and Degrees of Damage (DoD) which help estimate better the range of wind speeds the tornado likely produced. From that, a rating (from EF0 to EF5) is assigned.

An EF0 is considered a weak tornado with winds of 65-85 mph. This might cause broken tree branches, downed power lines, or minor roof damage to buildings.

Current Issues with the Outdoor Warning System

- In late 2023, sirens located at Brighton High and Firehouse Road stopped responding to tests, prompting an evaluation of status.
- Communication vendor notified the city of significant issues with the ability of control activation unit(s) to communicate securely with individual sirens, as technology is outdated and beyond repair.
- During this time, the unit lost the ability to communicate and could no longer activate the entire system.
- Contracted with siren vendor to assess full scope of the problem with communications and siren equipment systemwide.

Total Estimated Cost to Repair and Maintain Current System:

- Initial Cost: includes an update to a secure radio communication system and frequency, new control (activation) unit station, new batteries, amplifiers and labor $130,840
- Maintenance Cost: includes site visits and basic siren maintenance, battery replacement every 4 years (does NOT include equipment, parts or replacement pieces if needed) $3,500- $5,000 per year and additional $11,000 every 4 years for battery replacement

Are other communities still using outdoor warning sirens?

- In Adams County, Commerce City and Aurora are still utilizing outdoor warning sirens
  - The City of Commerce City has 20 operating siren towers
  - The City of Aurora has over 50 outdoor warning sirens
- Only some communities in Weld County have outdoor warning sirens
- The City and County of Denver has 86 operating sirens throughout their jurisdiction
- The city of Longmont de-commissioned their siren system in 2017
- The City of Wheat Ridge announced the retiring of their system last month
- The City of Arvada de-commissioned their siren system about two years ago
- Frederick and Firestone chose to deactivate their siren system in 2013

Alternatives to Repairing the System

- Utilize existing mass notification system (CodeRED) to alert residents

Zip	Residential	Business	Email	SMS	Phone	TDD
80601	4216	245	1303	5342	5988	145
80602	898	7	338	1159	1314	11
80603	517	8	178	666	762	9
80640	719	51	301	927	1089	12

Number of CodeRED registrations by zip code as of April 2024, data provided by OnSolve

- Encourage use of NOAA weather radios
- Local media and NWS alerts and updates
- Smart phone apps
- Availability of Integrated Priority Alert System (IPAWS)
  - Where CodeRED is targeted messaging based on users and addresses, IPAWS is targeted messaging based off a geotargeted area and uses the wireless emergency alert system to notify cell phones within that area. CodeRED reaches landlines, registered cell phones, and physical addresses.

Brighton℠

Questions?