

Tolt Dam Early Warning System Progress

Carnation City Council Meeting

May 18, 2021



Dam Safety and Weekly Test

- No reported issues with weekly tests
- Monitoring siren performance on site
- Minor earthquake 4/28 - not large enough to trigger further action

Seismic Safety

- **Dam Safety Monitoring - 24/7**
- 4 instruments work together to trigger any alarm
- If triggered, SPU 24/7 operators evaluate instruments and cameras at the dam to verify
 - Reservoir level indicator
 - Buried wire in the crest of the dam
 - Two river flow measurements in two locations
- Also have accelerometer at the dam. When triggered, would alert operators to verify instruments and cameras, and trigger early warning system if needed.

- **Earthquake Magnitudes and Actions**
 - Any earthquake greater than 4.0 magnitude triggers immediate, physical dam inspection.

- **4/28 Event**
 - 2.5 magnitude, not large enough to trigger seismic switch for accelerometer; 4 instruments continued to show normal activity.





Evacuation Planning

- Text alert signup via [ALERT King County](#)
- Non-emergency community text alerts workshop
- King County Ofc of Emerg. Mgt. evacuation planning
- Inundation area information

Evacuation Trail Maintenance May 1



Tolt Dam Early Warning System Replacement Project

- Replace and improve outdated siren and system components.
- Add redundancy, resiliency, and reliability.
- Add signage.
- Listen and respond to community needs and suggestions.
- Develop a consistent design for sirens and tones.



Signage and Sirens

- Coordinating with: City Manager Jean, Ben Thompson, CM Harris on design (also considering community feedback)
- Replacing 8 sirens at 4 outdoor/4 indoor locations
- Exploring new signs/sirens
 - 3 outdoor sirens
 - 6 digital message signs



Potential Digital Message Sign Locations

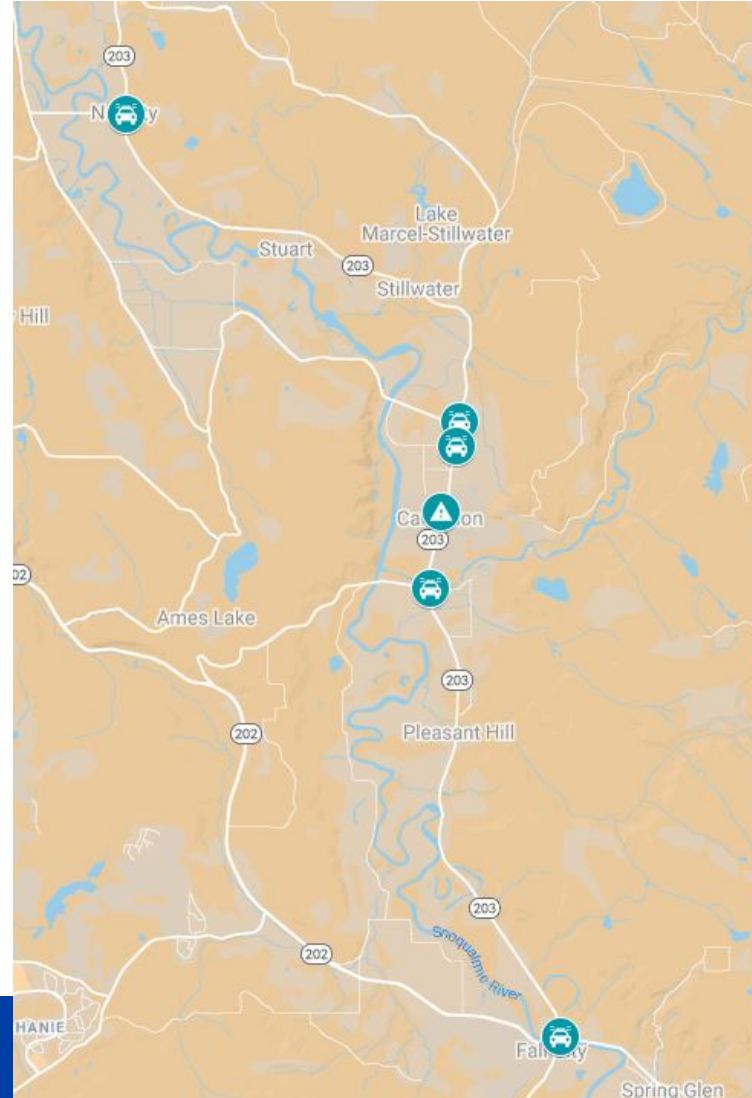


New Digital Sign

- NE 124th and SR 203
- Carnation Farm Road and SR203
- NE 60th and SR 203
- Tolt Hill Road and SR203
- SR 202 and SR 203
- New City Hall Alerting Device



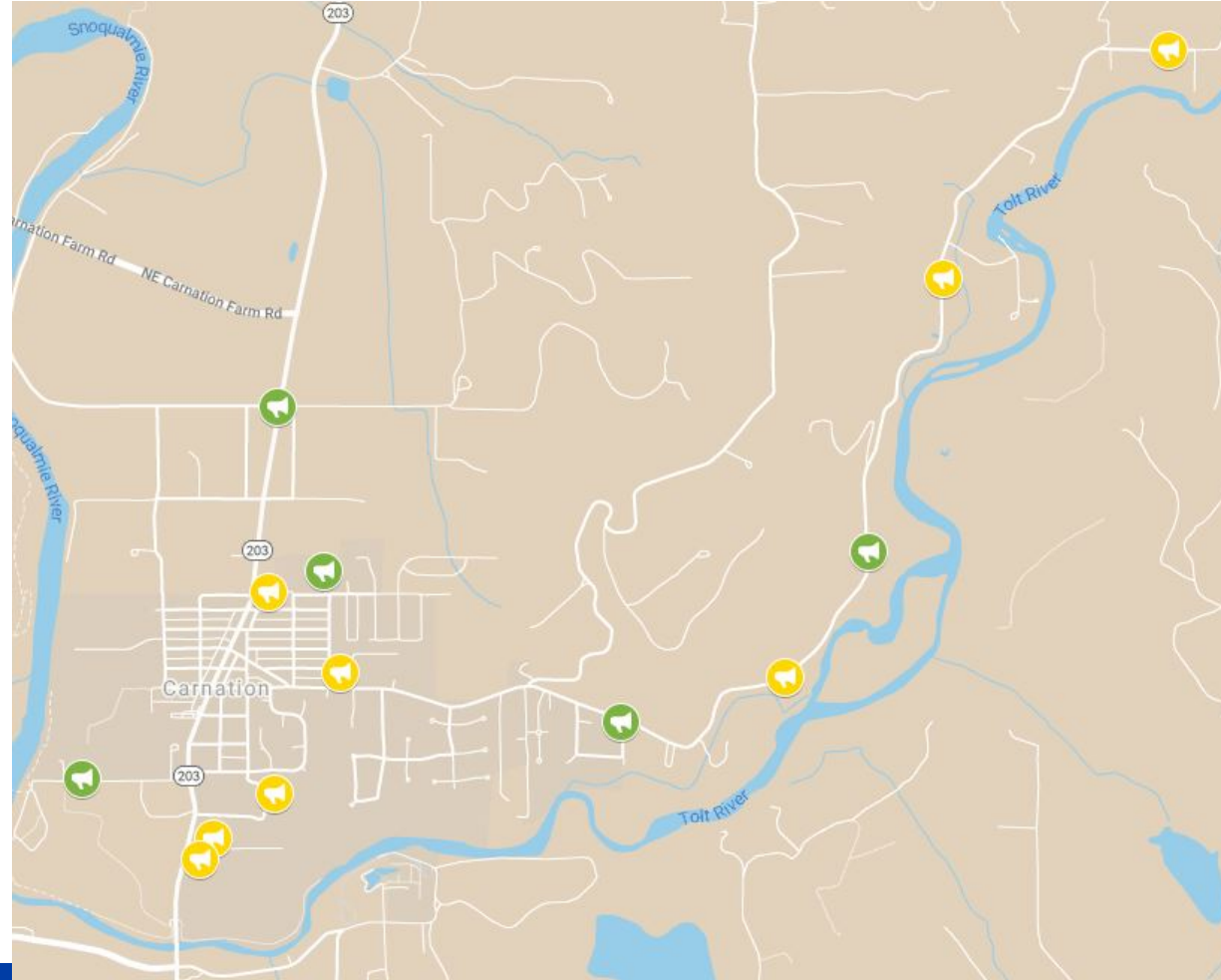
- Working through these preliminary locations with Ben Thompson



Siren Locations (Existing & Potential)

- Existing Siren
- Potential New Siren
 - NE 60th and SR 203
 - Tolt MacDonald Park
 - Tolt River Road and 336th (River View Park)

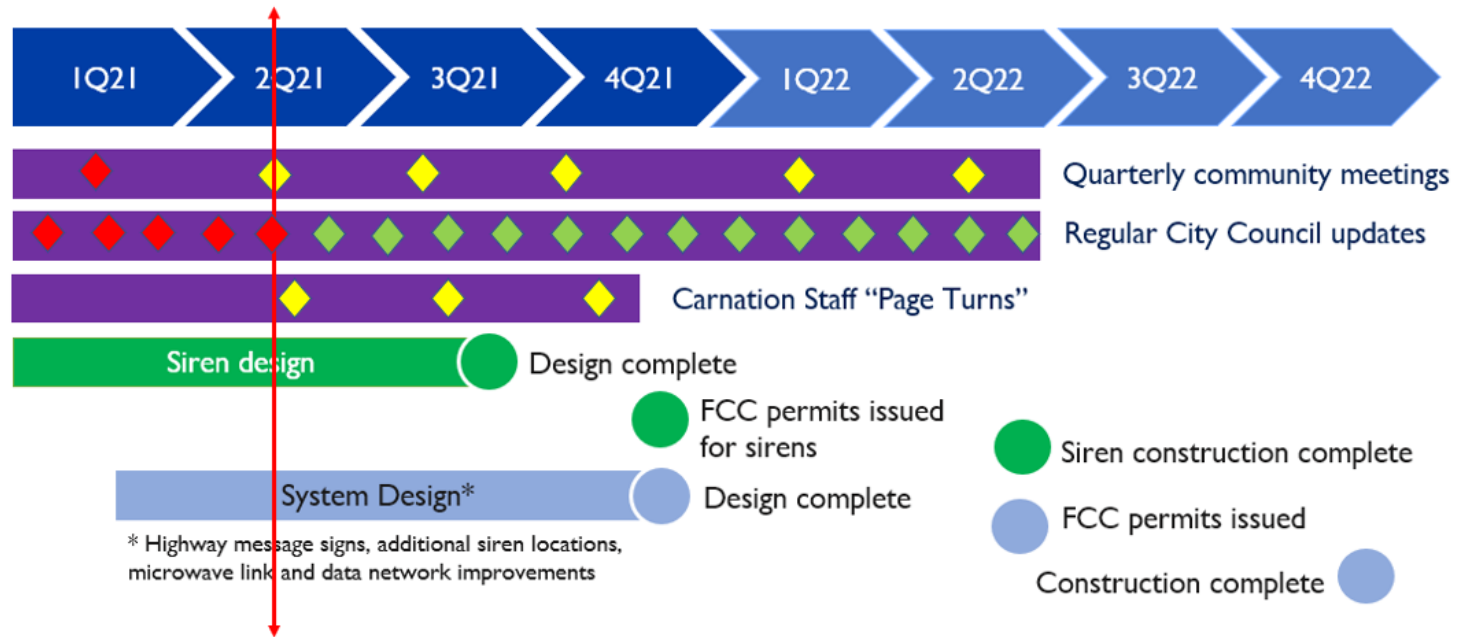
Note: The existing Siren 3 will be moved further northeast along the Tolt River Road.



Next Steps

- Design page-turn, May 19
- Council update June 15
- 2Q Community Mtg – **TBA**
- Continue siren design - focus on FCC permit needs
- Continue design for full system replacement

Project schedule



Resources

- www.seattle.gov/utilities/toltsirenproject
- [ALERT King County](#)
- [Tolt inundation area map](#)



Questions?

