

Tolt Dam Warning System False Alarm on July 28, 2020

City of Carnation Community Meeting, August 3, 2020; 7 pm



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- [Mayor's Corner](#)
- [City Manager's Blog](#)
- [Legal Notices](#)
- [Road Alert](#)
- [Valley 104.9 FM](#)

Seattle Public Utilities Message to the Residents of Carnation

Friday, July 31, 2020

To the Residents of Carnation,

Seattle Public Utilities looks forward to attending the City of Carnation's community meeting on Monday, August 3, when we will share what we know about the Tolt Dam Warning System's false alarm that sounded for almost 40 minutes on Tuesday.

We sincerely apologize for the confusion and fear caused by the false alarm. We will address your concerns and share with you what information we have as to what happened.

Questions You Have Asked

- What caused the false alarm?
- How did SPU communicate?
- Why did the sirens sound for so long?
- What are we doing to improve?
- How can I get a copy of the inundation map?

Agenda

- Background
- What Happened
- Investigation
- Next Steps
- Q&A



Tolt Dam Location



Map data ©2016 Google 2 mi



Tolt Dam

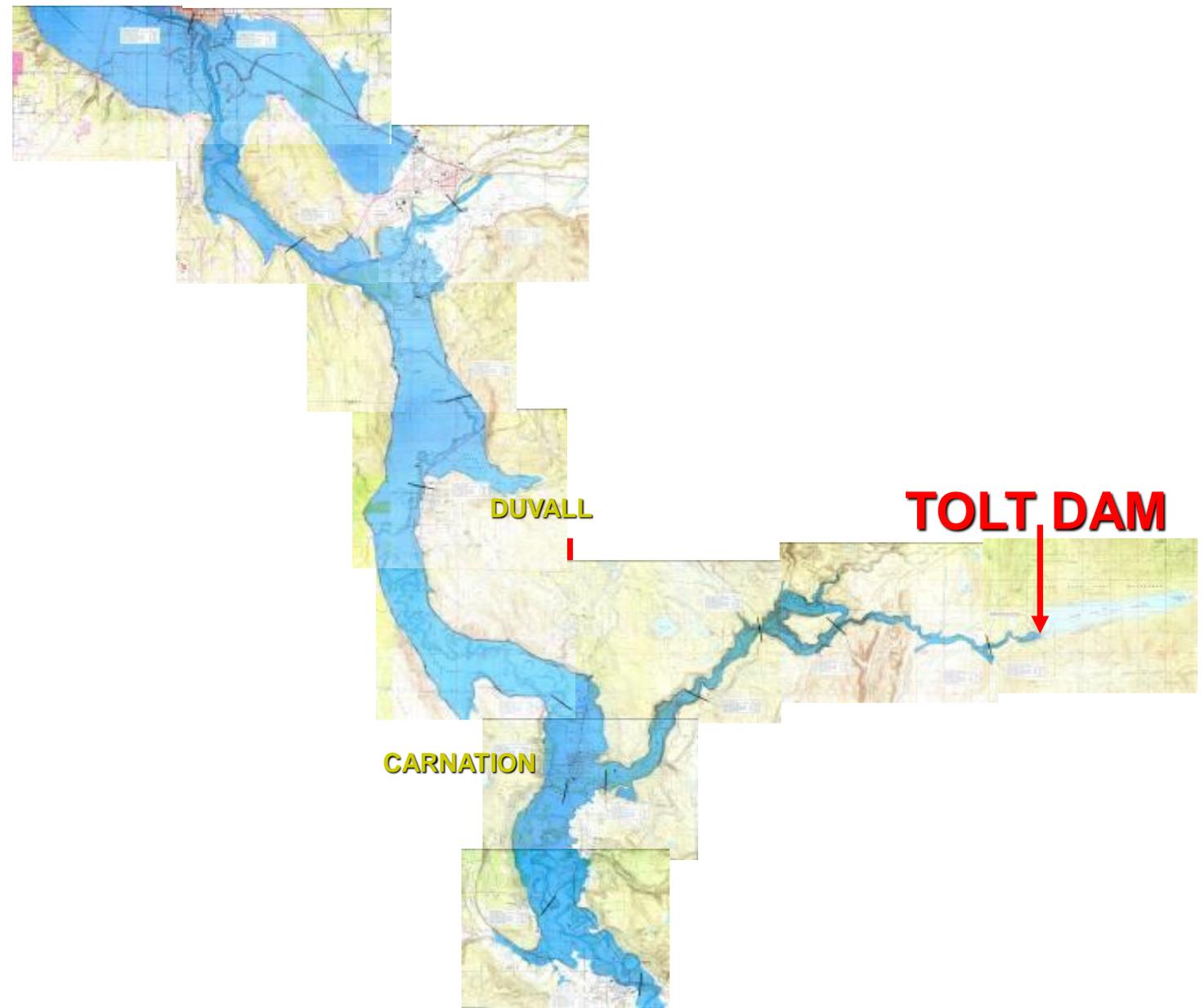
- Earthfill dam
- 200 feet high, 980 feet long
- Storage of 18 billion gallons
- Supplies 1/3 of Seattle's water
- Seattle City Light hydroelectric facility
- ~11 River Miles to nearest homes
- ~14 River Miles to Carnation



Seattle Public Utilities and Seattle City Light Dam Safety Program

- 24/7 surveillance and monitoring
- Daily visual inspections and instrument readings
- Safety and Security Plan
- Periodic engineering, federal and independent consultant inspections
- Emergency Action Plan, including siren system

Inundation Zone



Dam Failure Detection System

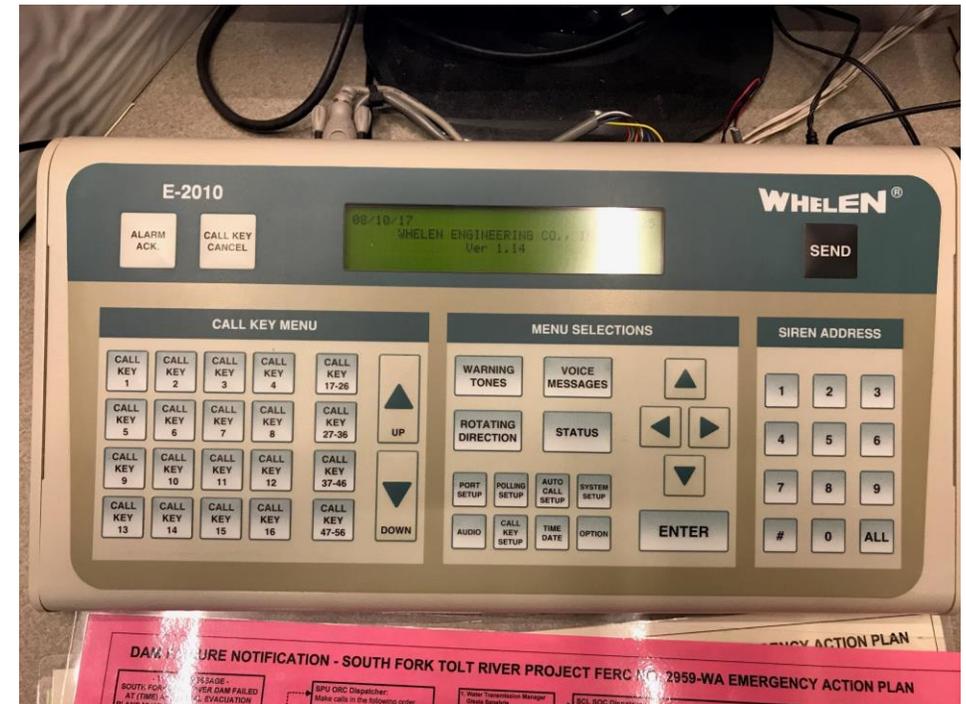
- Reservoir level indicator
- Dam crest loops
- Upstream river gauging station near spillway
- Downstream river gauging station near North Fork Bridge

2 of the 4 conditions needed to start 20-minute countdown for siren activation. 20 minutes allows time to diagnose potential false alarms; operators can activate sooner.

Additionally, the dam face and key features are under 24 hour video surveillance, monitored at the SPU Control Center. Any anomalies are noted and investigated.

What caused the false alarm?

- Alarm control panel malfunctioned, immediately activating sirens without the 20-minute countdown



How did SPU communicate?

- Emergency Action Plan activated
- Calls made to City of Carnation and emergency partners
- Message from the beginning: “False alarm”
- SPU will work with our emergency response partners to identify and address communication gaps and problems

Why did the sirens sound for so long?

- 11:16AM: Sirens alarmed suddenly, no 20-minute countdown
- 11:17AM: False alarm confirmed
- 11:26AM: Callouts to agencies completed (false alarm).
- 11:34AM: Shutdown commands to sirens not accepted by control panel. Began alternate protocols to turn off sirens.
- 11:54AM: Sirens turned off

What are we doing to improve?

- Replaced malfunctioning control panel
- Accelerating the project already planned to replace the dam safety warning system
- Conducting a full “after-action” analysis, identifying response issues and how we can improve
- Improving emergency communications working with our partners

Questions and comments

