Alewife Brook and Pumping Station Tour 5/2

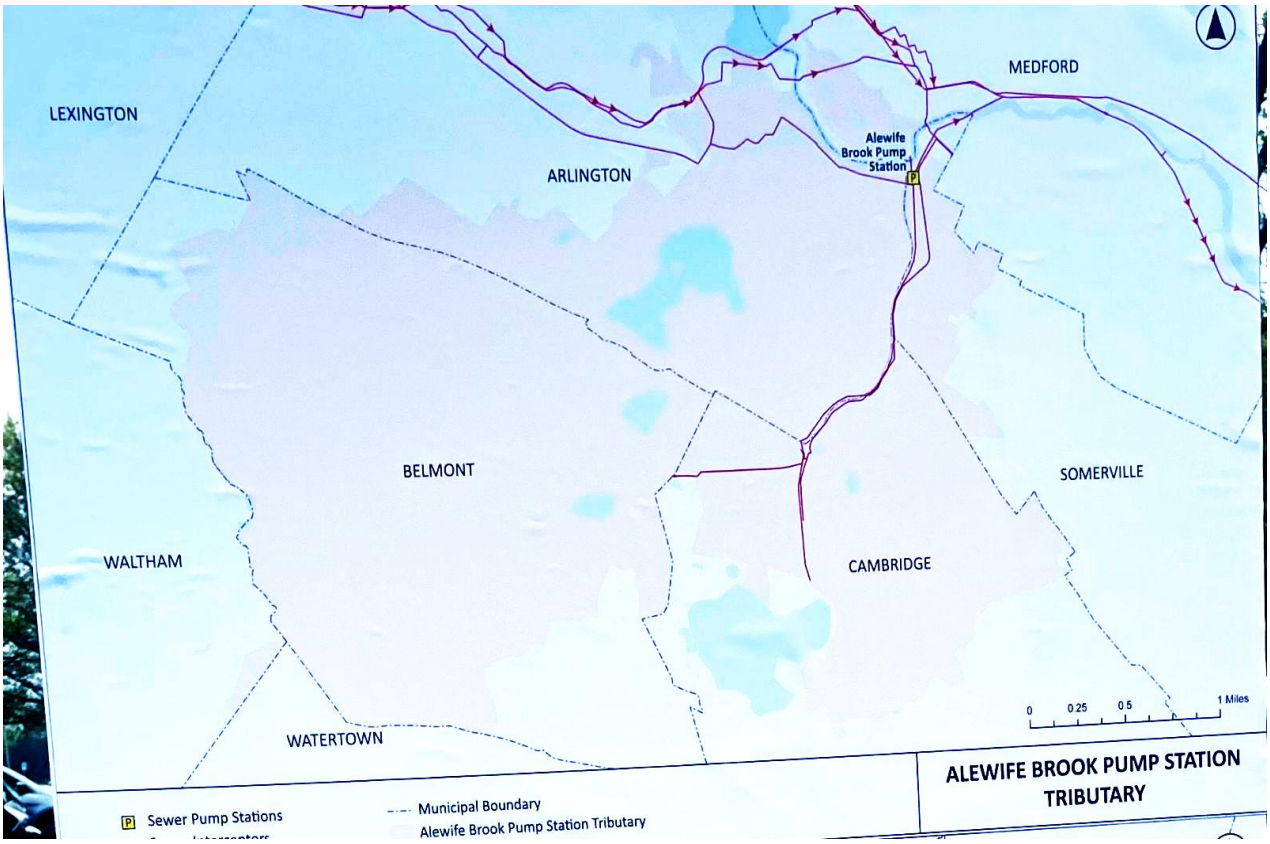
WAC members in front of the Alewife Brook Pumping Station

Who was there: WAC members: Martin Pillsbury, Taber Keally. Moussa Siri (WSCAC staff), Bill Copithorne (WSCAC); Stephen Cullen, director of Wastewater and Jeremy Hall, director CSO (MWRA); David Morgan (Arlington DPW); Wendy Robinson and Lucica Hiller (Cambridge DPW); Kristin Anderson, Ann McDonald, and David Stoff (Save the Alewife); Andy Hrycyna and Isaiah Johnson (MyRWA), Eric Grunebaum (Friends of the Alewife Reservation); Gwen Speeth

Andreae Downs, WAC staff

We conducted no WAC business as we did not have a quorum.

Stephen Cullen met us outside and described the tributary pipes:



The sewer coming along Route 16 is about 3’ diameter, built in the late 1800s, brick.

The stretch of Somerville that joins that is separated--so only sewage

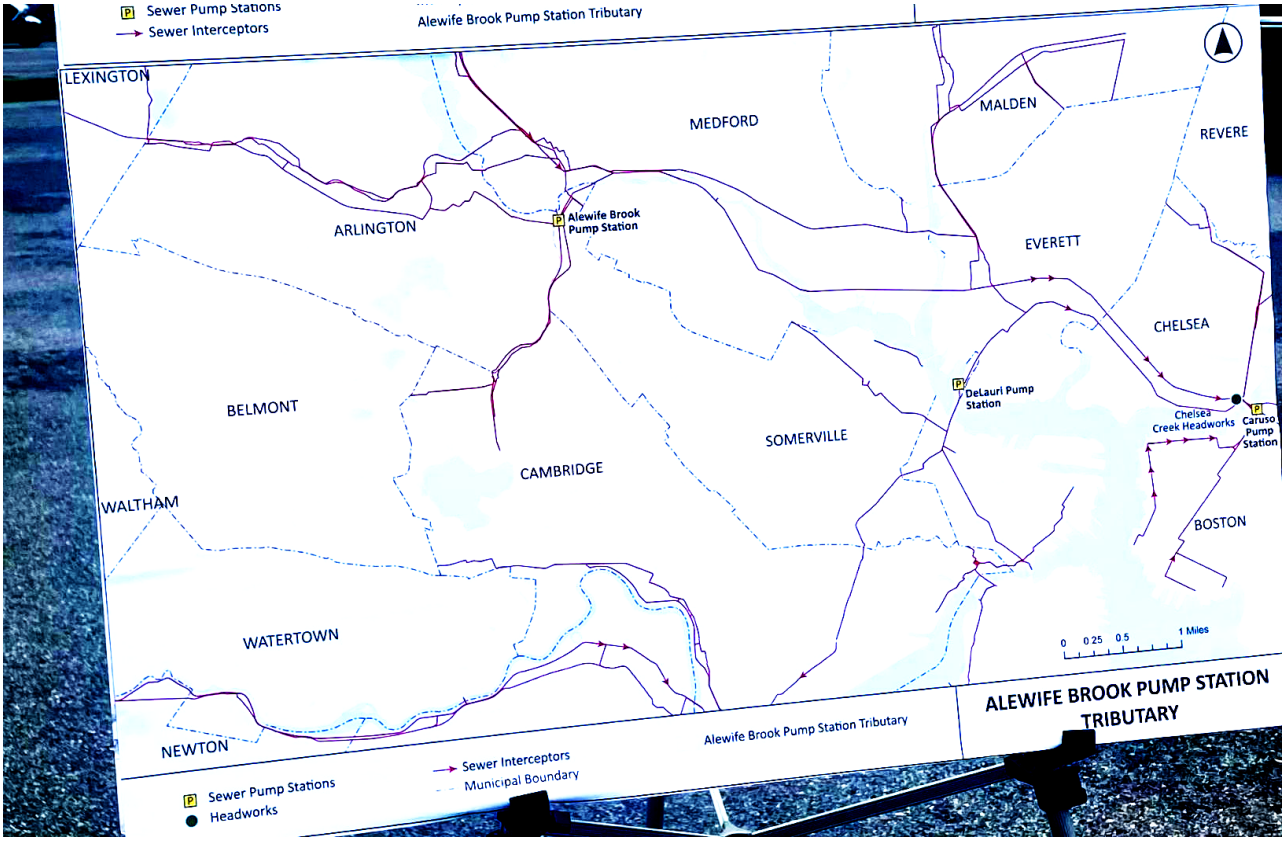
Second sewer coming in from the south along Alewife Brook built between 1948-52, when the new pumping station was built.

The pump station and this pipe were renovated 2018. 16’ concrete pipe

The Belmont branch (draining Belmont) runs along the Little River and ties in to Alewife Brook sewer

From the West, there are two lines--one coming from Decatur Street drains Arlington

Second—from Jerome St in Medford along the mystic



There are 4 pumps in station the smallest can pump 15 mgd (million gallons/day) and only feeds to the Alewife Brook sewer—oldest one ties in to north metro relief

All goes to the Caruso Pump Station via the Chelsea Creek Headworks

In the station, the pumps move sewage about 45 feet north, approximately 10 feet vertical.

Screen and grind solids, but screenings are returned to the flow until they hit the Chelsea Creek HW

Chelsea Creek HW receives sewage from 21 communities

Stephen Cullen and Isaiah Johnson

The Alewife Pumping Station has all energy-efficient variable frequency drives. Flow drops into a wet well, the pumps are calibrated to flow

When we were there, flows were low, so only using the dry-weather pump that moves 15 mgd or less. It was at 48%, but it was still loud!

There are three 37.5 mgd pumps that kick in when flows increase

As flows grow, first one of these pumps takes over from the 15 mgd pump, then a second (75 mgd), then, finally, the 15 mgd pump is added for a total of 90 mgd. That's the station's max capacity. One 37.5 mgd pump is held offline for repairs/emergency backup if one of the other 2 fail.

The renovation in 2018 upsized the pumps and added the backup pump.

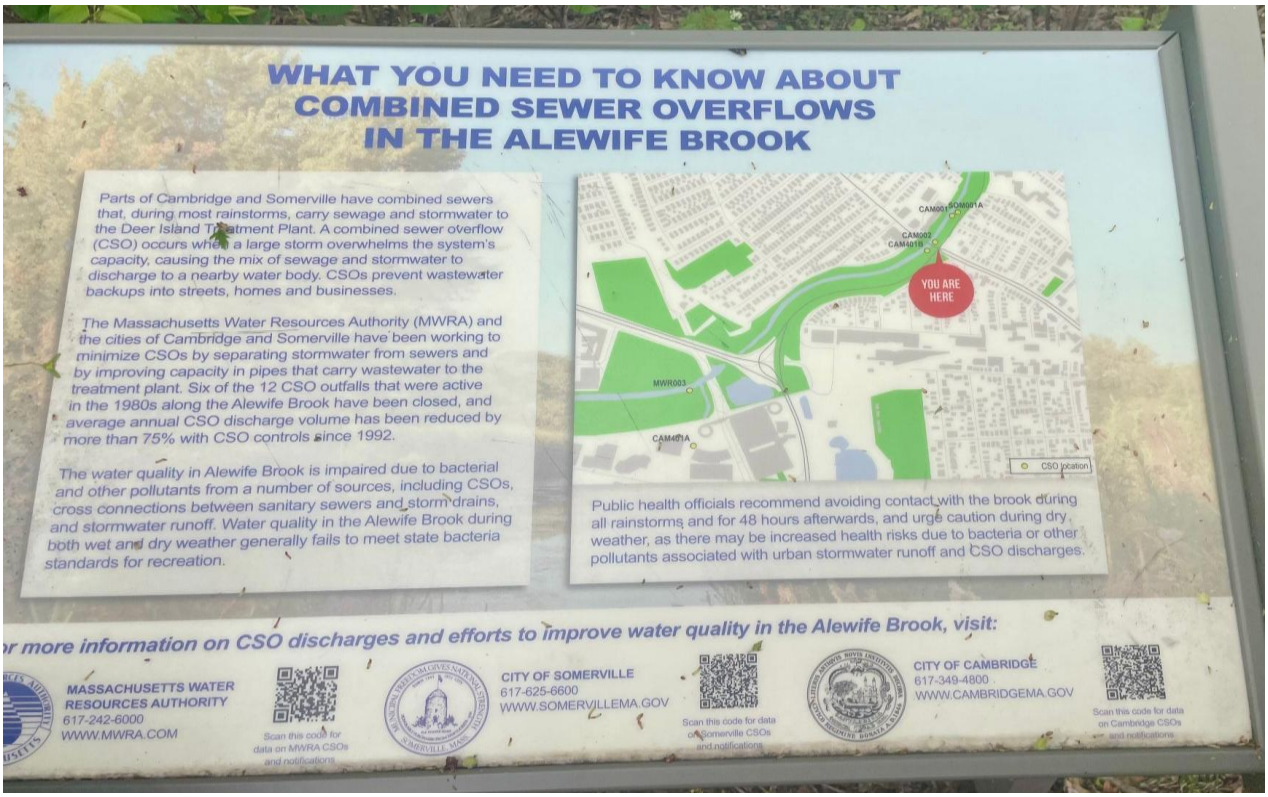
2 channels. 2 screens

Mr. Cullen asked that no pictures be taken inside the station.

David Stoff (yellow) talking with tour members along the Alewife Brook Path

The tour then continued down the Alewife Brook Path. Save the Alewife members showed us three outfalls, the floodplain (the brook is shallow and flooding is flashy), and some of the wildlife.

Goslings at the Tannery Brook outfall



Informational signage

More wildlife