

Burlington's Request to Purchase Water from the MWRA under the Interbasin Transfer Act

WRC Draft Staff Recommendation

August 13, 2020

Facts Pertaining to the Application

Burlington, the Receiving Community, has land area in the Shawsheen, Ipswich, and Boston Harbor basins

MWRA Waterworks System, the Donor Basin, has sources in the Chicopee River and Nashua River basins

Burlington's existing sources consist of seven groundwater wells and two surface water sources

3 wells offline due to 1,4-dioxane contamination

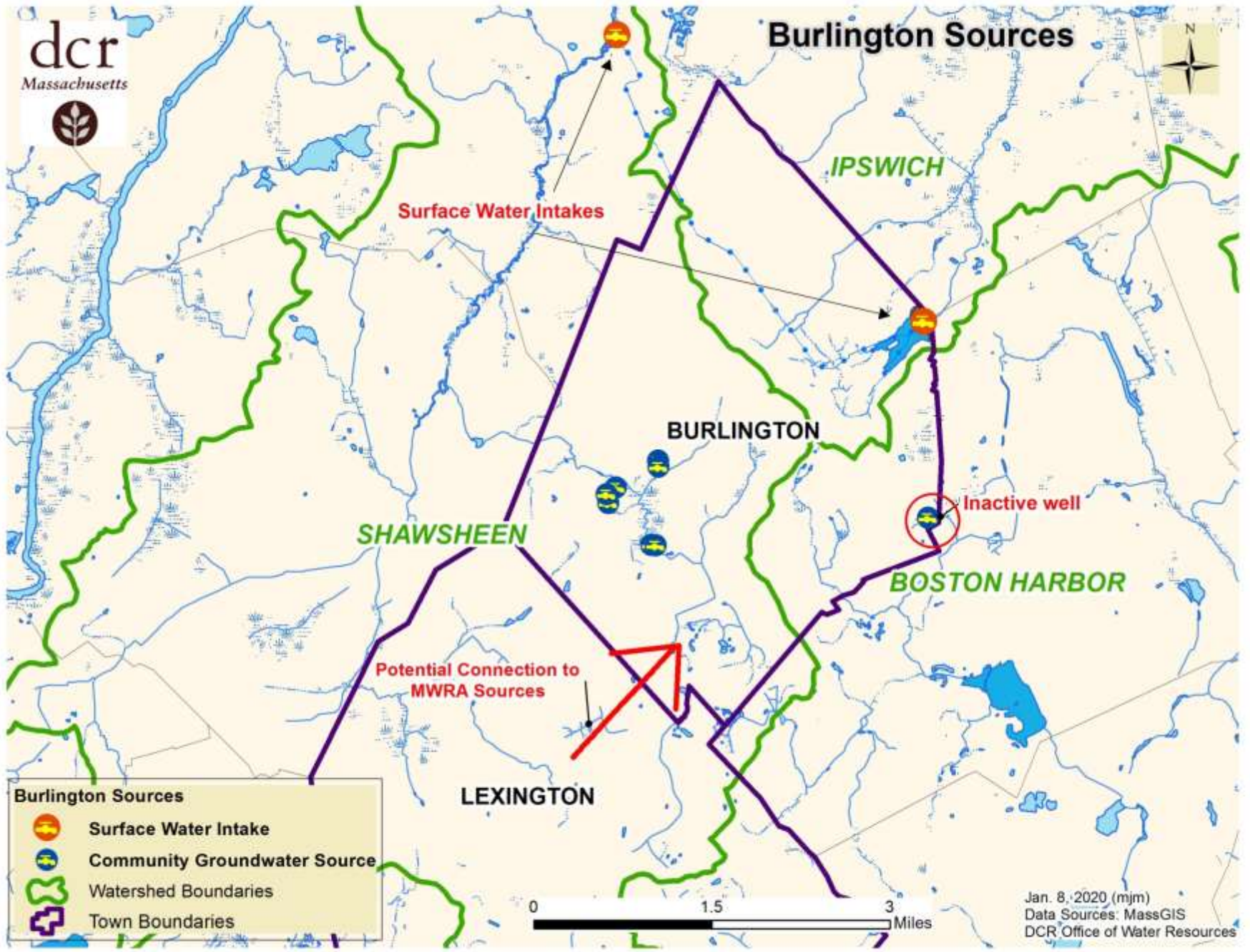
Mill Pond Reservoir primarily fed from Shawsheen River via 4-mile pipe

Mill Pond WTP (2.5-3 MGD) lacks redundancy (offline 2-3x/year for cleaning)

Proposing to purchase up to 6.5 MGD (max day) to supplement its existing water supply sources and provide redundancy:
Phase 1 - up to 1 MGD; Phase 2 - up to 6.5 MGD



Burlington Sources



Surface Water Intakes

IPSWICH

BURLINGTON

SHAWSHEEN



Inactive well

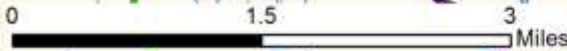
BOSTON HARBOR

Potential Connection to
MWRA Sources

LEXINGTON

Burlington Sources

-  Surface Water Intake
-  Community Groundwater Source
-  Watershed Boundaries
-  Town Boundaries



2011: 1,4-dioxane ORSG reduced from 3ppb to 0.3ppb

Wells 3, 4 & 5 taken offline at Vine Brook TP, resulting in a loss of 1 MGD and remaining capacity of 1.95 MGD

Town implemented a Drought Plan including outdoor watering restrictions tied to elevations at Mill Pond

2016: Alternatives Analysis reviewed existing sources, new sources, purchase from MWRA and/or neighboring towns

Recommended Alternative: Vine Brook offline, keep Mill Pond, estimated need from MWRA= 3.5 ADD, 6.5 MDD with Mill Pond offline

Brief Timeline

Criteria of the Act

Criteria	Application Meets?
Criterion #1: MEPA Compliance	Yes
Criterion #2: Viable In-Basin Sources	Yes, with conditions
Criterion #3: Water Conservation	Yes, with conditions
Criterion #4: Forestry Management	Yes, with conditions
Criterion #5: Reasonable Instream Flow	Yes
Criterion #6: Groundwater/Pumping Test	Not Applicable
Criterion #7: Cumulative Impacts	Yes

CRITERION 2 Viable In- Basin Sources



Mill Pond is a viable local source but lacks redundancy and its capacity varies due to streamflow restrictions



Local groundwater sources have significant water quality challenges - high risk of contamination



Capacity + contamination challenges

CRITERION 3 Water Conservation

Meets most of the Performance Standards for Water Conservation including:

- 65 rgpcd/10%UAW, metering, leak detection, drought plan

Commitment to adjust rates and billing frequency to provide a conservation signal

Will expand ICI outreach to targeted users with materials from WaterSense

CRITERION 5
Reasonable
Instream
Flow
&
CRITERION 7
Cumulative
Impacts

Regulations require consideration of a broad range of environmental information, including:

- effects on flood flows, intermediate flows, & low flows, considering existing flow alteration
- impacts to fisheries, hydropower, rare and endangered species

Criterion 7 evaluates impacts of past, authorized, or proposed transfers on streamflow in the donor basin

Looked at up to 10 MGD transfer (includes 6.5 MGD Burlington & Ashland 1.6 MGD)

CRITERION 5
Reasonable
Instream
Flow
&
CRITERION 7
Cumulative
Impacts

Quabbin and Wachusett Reservoirs are large; mandated releases to Swift and Nashua Rivers

Ware River diversions limited by season and streamflow

No impacts to low or intermediate flows; minimal impact to high flows

Quabbin drought performance using 2040 projected demands within acceptable range

No impacts to other resources listed in the regulations (e.g., fisheries, endangered species, hydropower)

Determined that “reasonable instream flow” remains and there are no adverse impacts to resources

Conditions of the Approval

Burlington must commit in writing to abide by any required conditions. Conditions cover:

Maximize local sources - Mill Pond whenever feasible

Quarterly-equivalent billing

Water rates adjustments:

- Eliminate base allocation for irrigation accounts
- Adjust irrigation tiers
- Eliminate or significantly reduce base allocation for commercial accounts

Update drought and water conservation plans

Outreach to top ICI users

Next Steps

August 13

- Presentation of Draft Staff Recommendation at the MA WRC meeting

August 18

- Public hearing on Draft Staff Recommendation

Sept/Oct WRC Meeting

- Presentation and vote on the Final Staff Recommendation

October 17, 2020

- Deadline for vote