

## Lead Levels in Drinking Water at Bridport Central School, Bridport, VT

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### TECHNICAL SUMMARY of RESULTS

The technical summary of results is not intended as a stand-alone document, but as a ready reference for the primary findings, including for those prioritizing outlets for remediation.

Most outlets (15 outlets, 62%) produced FD samples with detectable lead, but for most of these (67%), the lead was at 1 ppb or lower and, therefore, meets the American Academy of Pediatrics (AAP) health-based recommendation for school water fountains. **Table 1** and **Figure 1** summarize the five outlets prioritized for remediation.

**Table 1:** Bridport Central School outlets prioritized for remedial action (“priority outlets”).

Priority level	Concern	Rationale	Outlet ID	Outlet type & location	First Draw (ppb)	Flush (ppb)
Highest	Exceeds EPA action level	Likely & frequent use by children for direct consumption	BL13	classroom water fountain, Room 10	16	3
		Potential for frequent use by children for direct consumption	BL21	classroom sink, Room 17	18	1
	Exceeds AAP recommended safety level for school water fountains	Potential for frequent use by children for direct consumption	BL22	classroom sink, Room 17	12	<1
			BL12	classroom sink, Room 10	2	n.d.
			BL18	health office sink, Room 11	2	n.d.

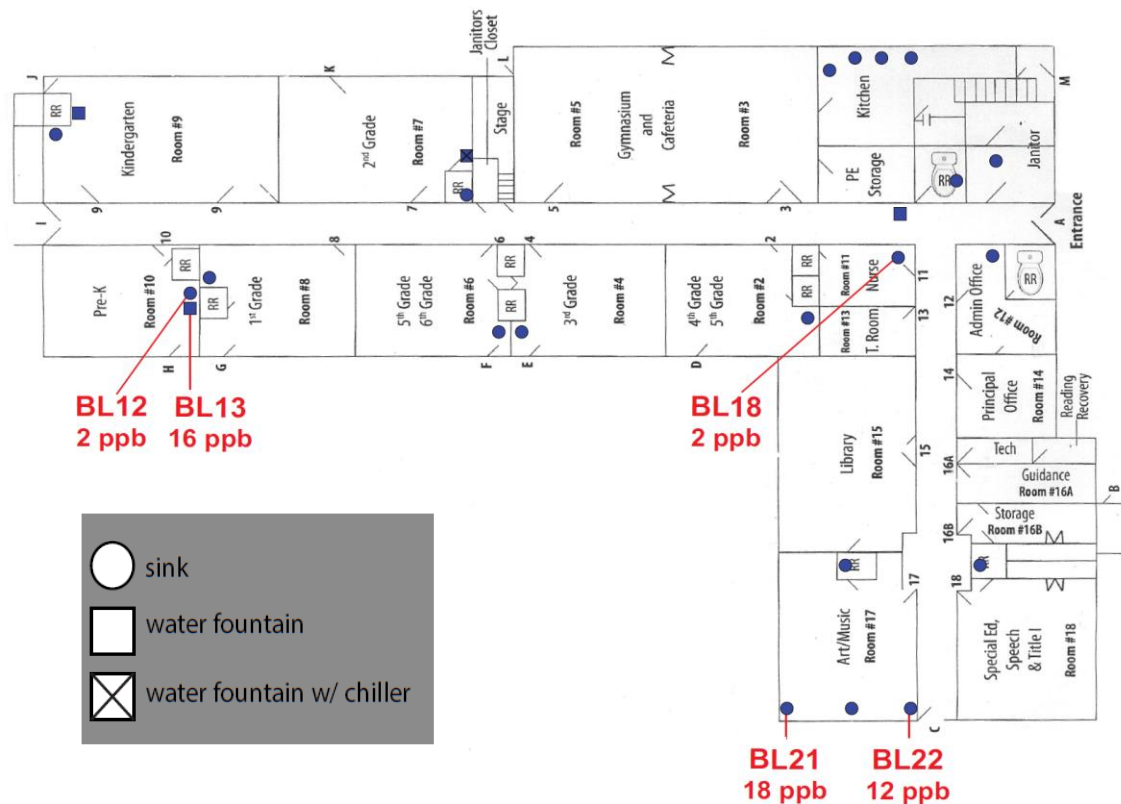
Remedial actions include permanent (preferred) and temporary measures; appropriate actions depend on the source of lead in the water. FL samples had lower lead levels as compared to their associated FD sample, which suggests that the predominant source of the lead in the FD samples is the outlet fixtures or immediate connections (e.g., solder) rather than incoming water or pipes within the school. All but one FL sample were either non-detect for lead or lead was present only at trace levels (e.g., <1 ppb), which suggests that flushing may serve as an effective temporary measure for four of the five priority outlets. The BL13 outlet (classroom water fountain), which produced one of the FD EPA exceedances, produced water at 3 ppb, exceeding the AAP recommendation, even after the 30-second flush.

**We recommend that BCS pursue the following *permanent* remediation approach for priority outlets:**

- 1) replace existing outlet fixtures with “lead-free” fixtures/solder or remove the outlets

entirely

- 2) if replaced, verify remediation efficacy via follow-up lead testing following replacement



**Figure 3.** Bridport Central School outlets prioritized for remediation due to FD samples that exceeded either the administrative (not health-based) 15-ppb EPA action level and/or the health-based 1-ppb 2016 American Academy of Pediatrics recommended safety level.

Until priority outlets are permanently remediated, we suggest the following *temporary* approaches:

- 1) disconnect water supply to the priority water fountain (BL13)
- 2) disconnect water supply to priority sinks in locations where water is not needed for non-consumption uses
- 3) for priority sinks in locations where water *is* needed for non-consumption uses,
  - a. establish school-wide policies for water consumption from outlets by outlet type (e.g., “only drink from water fountains and bottle fillers,” or “do not drink from sinks” or “flush prior to use for consumption”), rather than location-specific policies
  - b. complement school-wide policy with age-appropriate signage at each priority outlet instructing on the school-wide policy and with educational outreach regarding the policy and its rationale

Finally, we recommend that BCS communicate the findings of this work and remediation updates with the school community, as well as post this report and remediation updates in a readily accessible location (e.g., school website). A draft letter describing the results for a general audience is provided in the full report.