



# Wastewater Epidemiology COVID-19 Report

**Updated:** 17-Jan-2024 | **Data Complete Through:** 14-Jan-2024

✉ [wastewater@bphc.org](mailto:wastewater@bphc.org)



Boston Public  
Health Commission

# Report Contents



## Summary

- Neighborhood Levels and Trends
- Citywide Overview and Trends
- BPHC Trend Overview by Neighborhood
- Citywide Percent Variant Lineages

## Detailed Results

- Neighborhood Levels and Data Table
- Results by Neighborhood
  - Allston/Brighton
  - Back Bay
  - Charlestown
  - Dorchester
  - East Boston
  - Hyde Park
  - Jamaica Plain
  - Mattapan
  - Roslindale/West Roxbury
  - Roxbury
  - South Boston

## Additional Information

- Site Status and Details
- Level and Trend Category Definitions
- Recommendations and Resources by Level

Level: **Very High**

Level: **High**

Level: **Moderate**

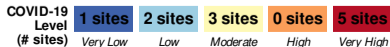
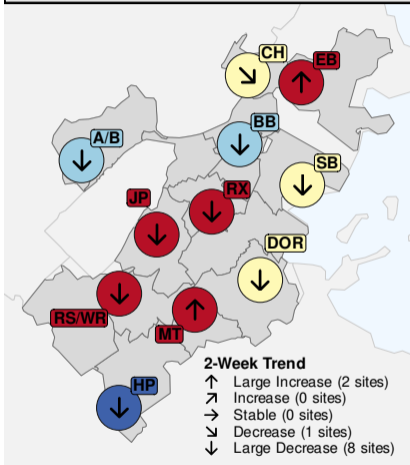
Level: **Low**

Level: **Very Low**

# Neighborhood Levels and Trends



## COVID-19 Wastewater Levels & Trends (14-Jan-2024)



## BOSTON CITYWIDE COVID-19 LEVEL & TRENDS

### COVID-19 LEVEL

**Very High**

1,954 copies/mL  
samples through 14-Jan-2024

### 2-WEEK TRENDS



**Large Decrease**  
-852 copies/mL (-30%)

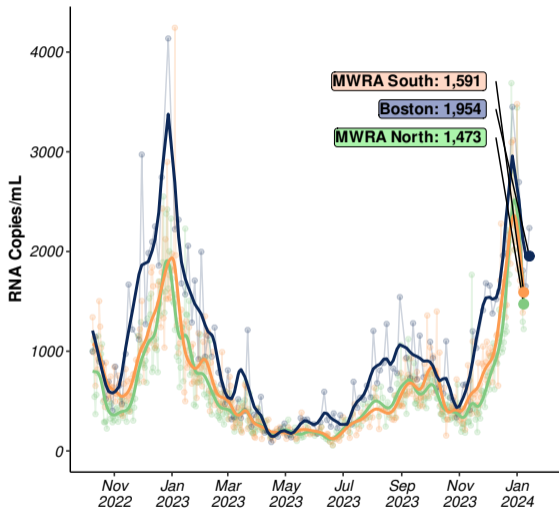
## NEIGHBORHOOD SITES COVID-19 LEVEL & TRENDS

Level	Neighborhood/Site	Trend
Very High	Mattapan (MT)	↑ Large Increase
	Roxbury (RX)	↓ Large Decrease
	East Boston (EB)	↑ Large Increase
	Jamaica Plain (JP)	↓ Large Decrease
	Roslindale/West Roxbury (RS/WR)	↓ Large Decrease
Moderate	Dorchester (DOR)	↓ Large Decrease
	Charlestown (CH)	↘ Decrease
	South Boston (SB)	↓ Large Decrease
Low	Allston/Brighton (A/B)	↓ Large Decrease
	Back Bay (BB)	↓ Large Decrease
Very Low	Hyde Park (HP)	↓ Large Decrease

For additional details see:

- [Results by Neighborhood](#)
- [Detailed Neighborhood Levels and Trends Table](#)
- [Trend and Level Category Definitions](#)

# Citywide Overview and Trends



**CITYWIDE  
AVERAGE**

**1,954**  
*RNA copies/mL*

**RANGE ACROSS 11  
NEIGHBORHOOD SITES**

**256-4,739**  
*RNA copies/mL*

Data through: **14-Jan-2024**

## 2-WEEK TRENDS

*Boston*  
**Decreasing**

**-30%**  
over the past 14 days

*MWRA North*  
**Decreasing**

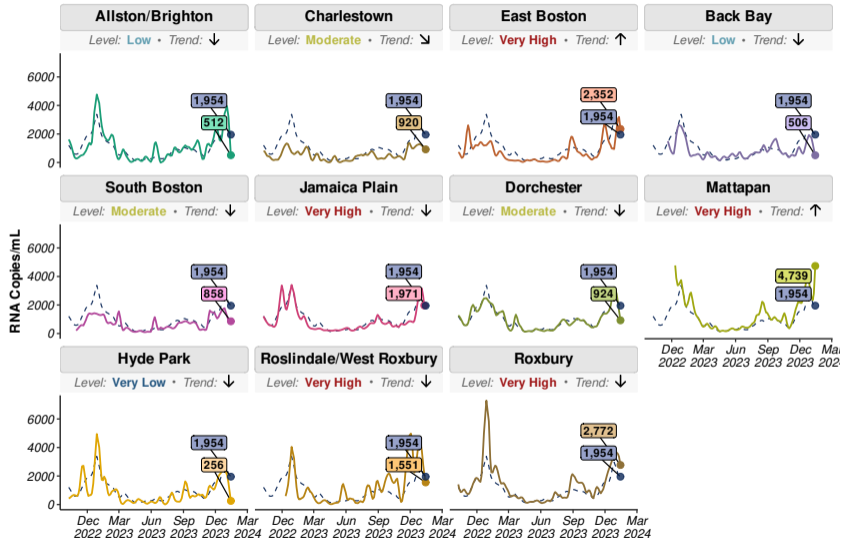
**-34%**  
over the past 14 days

*MWRA South*  
**Decreasing**

**-29%**  
over the past 14 days

Updated: 17-Jan-2024 | Samples through: 14-Jan-2024 (BPHC); 08-Jan-2024 (MWRA) | MWRA Data: <https://www.mwra.com/biobot/biobotdata.htm>

# BPHC Trend Overview by Neighborhood

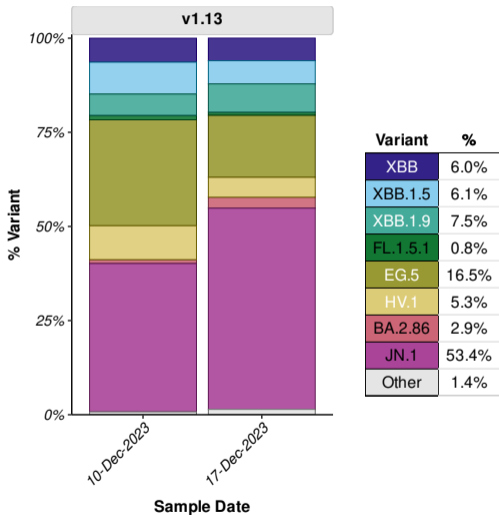


For each neighborhood, colored line and textbox shows the smoothed trend and most recent value in that neighborhood;

The dotted blue line and dark blue text box in each panel shows the trend and most recent value across **all Boston sites** weighted by population.

To see details and interpretation of these results for an individual neighborhood see [Results by Neighborhood](#).

# Citywide Percent Variant Lineages



Average variant percentage across all BPHC sites weighted by population size | Table shows variant percentages for samples collected the week of 17-Dec-2023 (most recent available data); Variant results are reported weekly with a 3-week lag due to laboratory processing and analysis.

*Sequencing Analysis Protocol Version: v1.13 (05-Jan-2024):*

- XBB includes all XBB sublineages aside from those specifically reported
- "Other variants" contains all variants not explicitly quantified.

*Version Changes: Added:* • BA.2.86 • JN.1

- Removed XBB.1.9.1, XBB.1.9.2, XBB.1.16

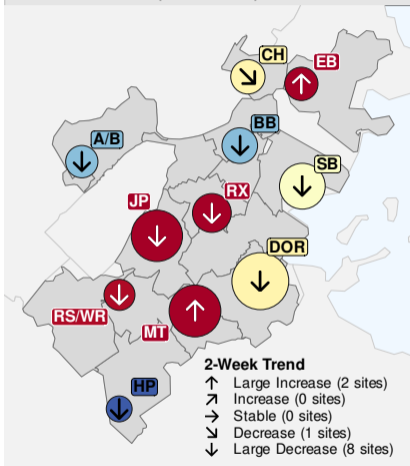
*For Additional Info See:*

<https://www.biobot.io/covid19-variants-report-notes/>

# Neighborhood Levels and Data Table



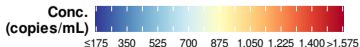
COVID-19 Wastewater Levels & Trends  
(14-Jan-2024)



NH	COVID-19 Wastewater Levels		2-Week Trends		
	Conc. (copies/mL)	Level	Trend	Diff. (copies/mL)	% Change
BOSTON	1,954	Very High	Large Decrease	-852	-30%
MT	4,739	Very High	Large Increase	+1,704	+56%
RX	2,772	Very High	Large Decrease	-871	-24%
EB	2,352	Very High	Large Increase	+700	+42%
JP	1,971	Very High	Large Decrease	-965	-33%
RS/WR	1,551	Very High	Large Decrease	-2,910	-65%
DOR	924	Moderate	Large Decrease	-2,230	-71%
CH	920	Moderate	Decrease	-348	-27%
SB	858	Moderate	Large Decrease	-649	-43%
A/B	512	Low	Large Decrease	-3,430	-87%
BB	506	Low	Large Decrease	-1,407	-74%
HP	256	Very Low	Large Decrease	-2,086	-89%

**Concentration Levels:** Very High: >1,400 copies/mL; High: 1,050-1,400 copies/mL; Moderate: 700-1,050 copies/mL; Low: 350-700 copies/mL; Very Low: ≤350 copies/mL

**2-Week Trend Categories:** Large Increase: >+500 copies/mL; Increase: +150 to +500 copies/mL; Stable: -150 to +150 copies/mL; Decrease: -500 to -150 copies/mL; Large Decrease: ≤-500 copies/mL



# Results by Neighborhood



- Allston-Brighton (A/B)
- Back Bay (BB)
- Charlestown (CH)
- Dorchester (DOR)
- East Boston (EB)
- Hyde Park (HP)
- Jamaica Plain (JP)
- Mattapan (MT)
- Roslindale/West Roxbury (RS/WR)
- Roxbury (RX)
- South Boston (SB)



# Allston/Brighton

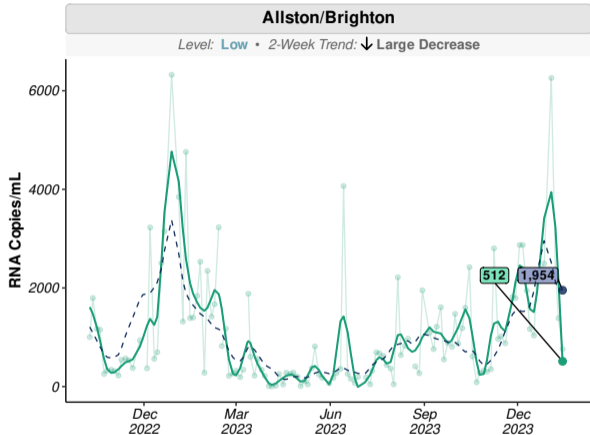


Level: **Low**

- Average value in A/B over the past week: 512 copies/mL.
- This value is low compared to past values and lower than the citywide average (1,954 copies/mL).

Trend: **↓ Large Decrease**

- Over the past two weeks, values in A/B are decreasing.
- Change compared to two weeks ago: -3,430 copies/mL (-87%).



Updated: 17-Jan-2024 | Samples through: 14-Jan-2024 (A/B);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# Back Bay

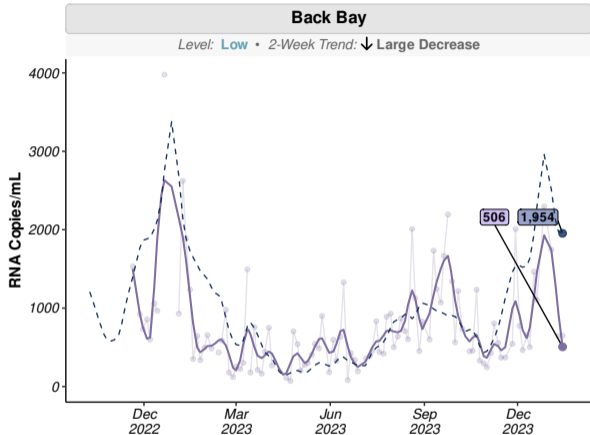


Level: **Low**

- Average value in **BB** over the past week: **506** copies/mL.
- This value is **low** compared to past values and **lower** than the citywide average (**1,954** copies/mL).

Trend: **↓ Large Decrease**

- Over the past two weeks, values in **BB** are **decreasing**.
- Change compared to two weeks ago: **-1,407** copies/mL (**-74%**).



Updated: 17-Jan-2024 | Samples through: 14-Jan-2024 (BB);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# Charlestown

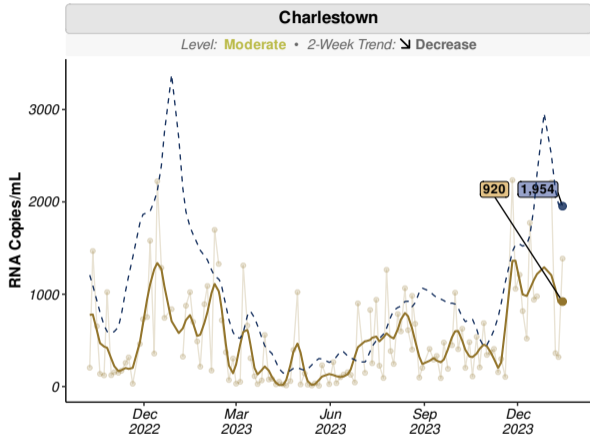


Level: **Moderate**

- Average value in **CH** over the past week: **920** copies/mL.
- This value is **moderate** compared to past values and **lower** than the citywide average (**1,954** copies/mL).

Trend: **Decrease**

- Over the past two weeks, values in **CH** are **decreasing**.
- Change compared to two weeks ago: **-348** copies/mL (**-27%**).



Updated: 17-Jan-2024 | Samples through: 14-Jan-2024 (CH);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# Dorchester

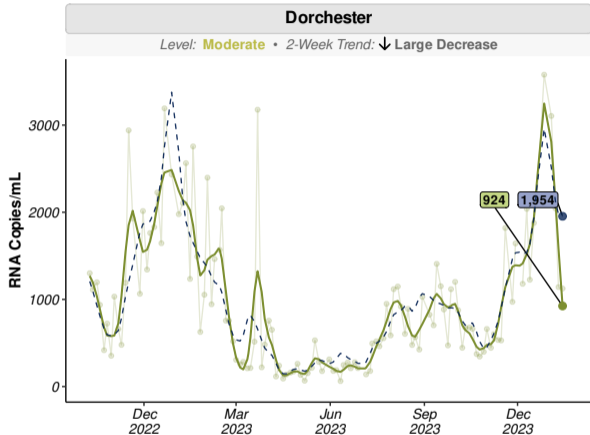


Level: **Moderate**

- Average value in **DOR** over the past week: **924** copies/mL.
- This value is **moderate** compared to past values and **lower** than the citywide average (**1,954** copies/mL).

Trend: **↓ Large Decrease**

- Over the past two weeks, values in **DOR** are **decreasing**.
- Change compared to two weeks ago: **-2,230** copies/mL (**-71%**).



Updated: 17-Jan-2024 | Samples through: 14-Jan-2024 (DOR);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# East Boston

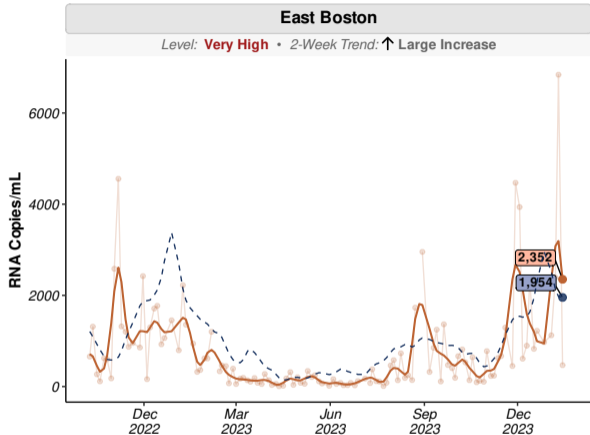


Level: **Very High**

- Average value in **EB** over the past week: **2,352** copies/mL.
- This value is **very high** compared to past values and **higher** than the citywide average (**1,954** copies/mL).

Trend: **↑ Large Increase**

- Over the past two weeks, values in **EB** are **increasing**.
- Change compared to two weeks ago: **+700** copies/mL (**+42%**).



Updated: 17-Jan-2024 | Samples through: 14-Jan-2024 (EB);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# Hyde Park

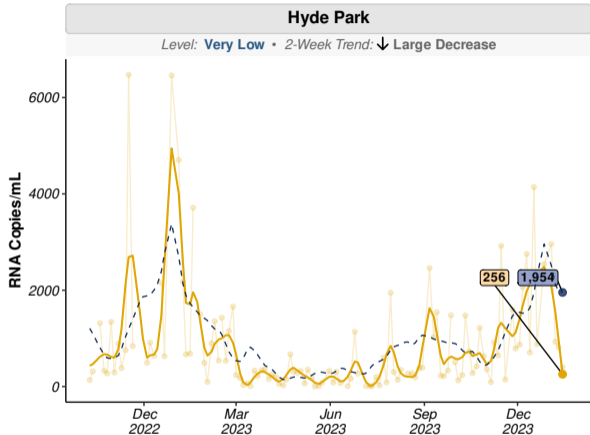


Level: **Very Low**

- Average value in **HP** over the past week: **256** copies/mL.
- This value is **very low** compared to past values and **lower** than the citywide average (**1,954** copies/mL).

Trend: **↓ Large Decrease**

- Over the past two weeks, values in **HP** are **decreasing**.
- Change compared to two weeks ago: **-2,086** copies/mL (**-89%**).



Updated: 17-Jan-2024 | Samples through: 14-Jan-2024 (HP);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# Jamaica Plain

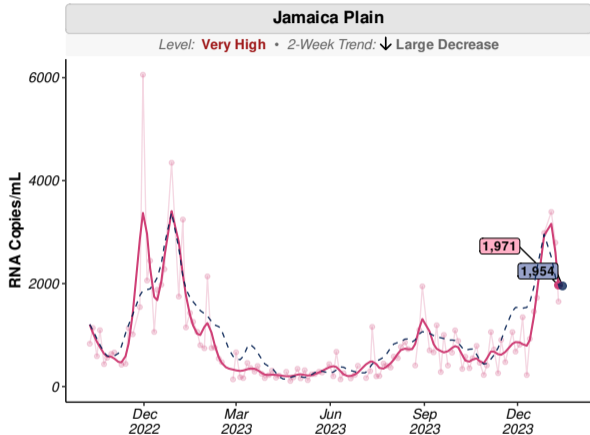


Level: **Very High**

- Average value in **JP** over the past week: **1,971** copies/mL.
- This value is **very high** compared to past values and **similar** than the citywide average (**1,954** copies/mL).

Trend: **↓ Large Decrease**

- Over the past two weeks, values in **JP** are **decreasing**.
- Change compared to two weeks ago: **-965** copies/mL (**-33%**).



Updated: 17-Jan-2024 | Samples through: 10-Jan-2024 (JP);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# Mattapan

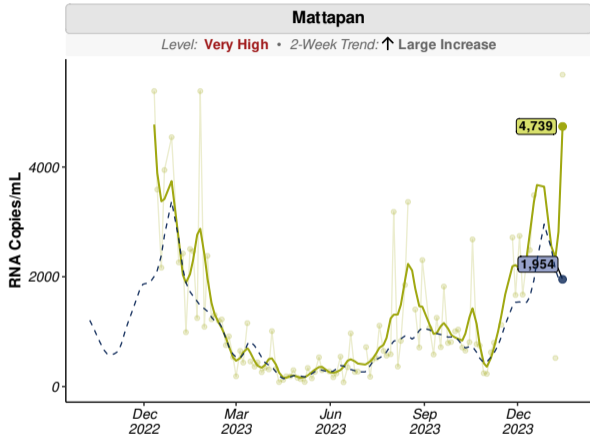


Level: **Very High**

- Average value in **MT** over the past week: **4,739** copies/mL.
- This value is **very high** compared to past values and **higher** than the citywide average (**1,954** copies/mL).

Trend: **↑ Large Increase**

- Over the past two weeks, values in **MT** are **increasing**.
- Change compared to two weeks ago: **+1,704** copies/mL (**+56%**).



Updated: 17-Jan-2024 | Samples through: 14-Jan-2024 (MT);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.



# Roslindale/West Roxbury

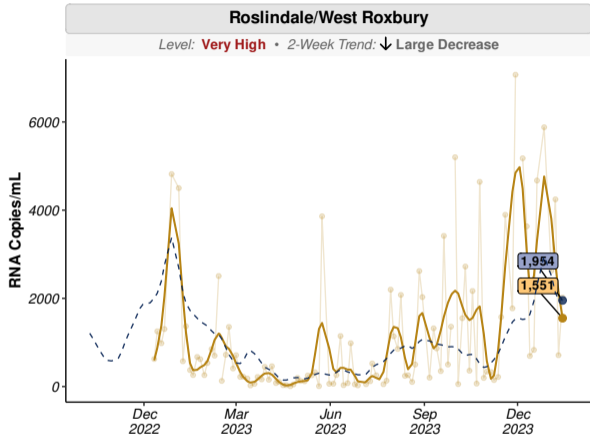


Level: **Very High**

- Average value in RS/WR over the past week: **1,551** copies/mL.
- This value is **very high** compared to past values and **lower** than the citywide average (**1,954** copies/mL).

Trend: **↓ Large Decrease**

- Over the past two weeks, values in RS/WR are **decreasing**.
- Change compared to two weeks ago: **-2,910** copies/mL (**-65%**).



Updated: 17-Jan-2024 | Samples through: 14-Jan-2024 (RS/WR);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# Roxbury

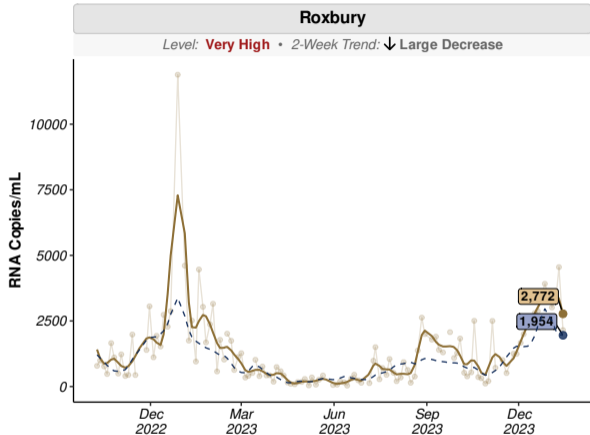


Level: **Very High**

- Average value in **RX** over the past week: **2,772** copies/mL.
- This value is **very high** compared to past values and **higher** than the citywide average (**1,954** copies/mL).

Trend: **↓ Large Decrease**

- Over the past two weeks, values in **RX** are **decreasing**.
- Change compared to two weeks ago: **-871** copies/mL (**-24%**).



Updated: 17-Jan-2024 | Samples through: 14-Jan-2024 (RX);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# South Boston

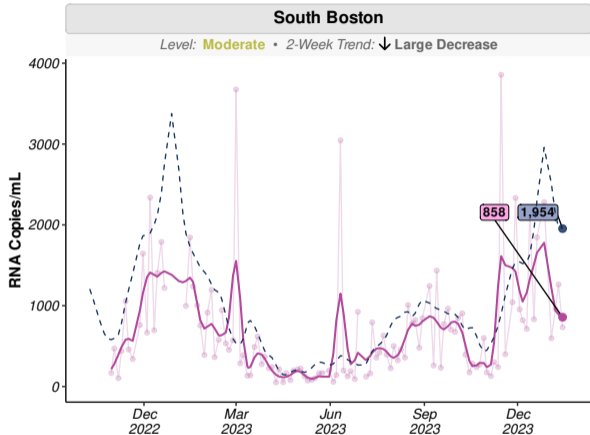


Level: **Moderate**

- Average value in **SB** over the past week: **858** copies/mL.
- This value is **moderate** compared to past values and **lower** than the citywide average (**1,954** copies/mL).

Trend: **↓ Large Decrease**

- Over the past two weeks, values in **SB** are **decreasing**.
- Change compared to two weeks ago: **-649** copies/mL (**-43%**).



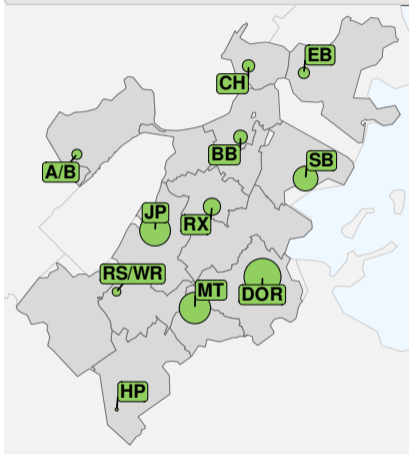
Updated: 17-Jan-2024 | Samples through: 14-Jan-2024 (SB);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# Site Status and Details



## Status of Sampling Sites (17-Jan-2024)



#	Neighborhood	Date Site Confirmed	Site Status	Pop. Covered	% Neighborhood Covered
01	A/B	02-Oct-2022	Active	2,684	4.0%
02	CH	02-Oct-2022	Active	3,736	18.3%
03	EB	02-Oct-2022	Active	3,178	6.3%
04	BB	20-Nov-2022	Active	4,551	8.1%
05	SB	30-Oct-2022	Active	14,962	35.8%
07	JP	02-Oct-2022	Active	23,573	56.9%
08	DOR	02-Oct-2022	Active	34,562	23.8%
09	MT	11-Dec-2022	Active	24,441	80.5%
10	HP	02-Oct-2022	Active	1,262	3.5%
11	RS/WR	11-Dec-2022	Active	2,165	3.5%
12	RX	02-Oct-2022	Active	7,036	16.5%

Site Status  
(N=11) **a** Active  
(n=11)

# Level and Trend Category Definitions



## Concentration Levels

Concentration Level	Concentration Value (Copies/mL)
Very High	>1,400
High	1,050-1,400
Moderate	700-1,050
Low	350-700
Very Low	≤350

## 2-Week Trend Categories

	Trend Category	Trend Value (Copies/mL)
↑	Large Increase	>+500
↗	Increase	+150 to +500
→	Stable	-150 to +150
↘	Decrease	-500 to -150
↓	Large Decrease	≤-500

## Level: **Very High**



Wastewater viral levels in your neighborhood indicate **very high risk** of COVID-19 infection.

Based on this level, BPHC urgently recommends the following practices to prevent COVID-19 in your community:

- Wear a [high-quality mask or respirator](#)
- If you are at [high risk of getting very sick](#), consider limiting non-essential indoor activities in public where you could be exposed.
- If you have close contact with someone at [high risk of getting very sick](#), consider self-testing to detect infection before contact, and consider wearing a high-quality mask when indoors with them
- Stay up-to-date on [vaccinations](#).
- Seek testing and possible treatment if you get sick
- Stay home when sick and avoid contact with others who are sick
- Improve [indoor airflow and ventilation](#)
- Wash your hands often and cover coughs and sneezes
- Follow CDC recommendations for [isolation](#) if you have COVID-19 and for [what to do if you are exposed](#) to someone with COVID-19

## RESOURCES

- Find a [vaccination clinic](#) in your neighborhood
- Find a [testing site](#) or pickup a [free at-home test kit](#) in your neighborhood
- Find [treatment](#) for COVID-19 including [free telehealth](#) and [in home treatment](#).
- Call or visit the [Mayor's Health Line](#)
- Learn more about COVID-19 and find additional resources: [COVID-19: Know the Facts Find the Truth](#)

## Level: High



Wastewater viral levels in your neighborhood indicate **high risk** of COVID-19 infection.

Based on this level, BPHC strongly recommends the following practices to prevent COVID-19 in your community:

- Wear a [high-quality mask or respirator](#)
- If you have close contact with someone at [high risk of getting very sick](#), consider self-testing to detect infection before contact, and consider wearing a high-quality mask when indoors with them
- Stay up-to-date on [vaccinations](#).
- Seek testing and possible treatment if you get sick
- Stay home when sick and avoid contact with others who are sick
- Improve [indoor airflow and ventilation](#)
- Wash your hands often and cover coughs and sneezes
- Follow CDC recommendations for [isolation](#) if you have COVID-19 and for [what to do if you are exposed](#) to someone with COVID-19

## RESOURCES

- Find a [vaccination clinic](#) in your neighborhood
- Find a [testing site](#) or pickup a [free at-home test kit](#) in your neighborhood
- Find [treatment](#) for COVID-19 including [free telehealth](#) and [in home treatment](#).
- Call or visit the [Mayor's Health Line](#)
- Learn more about COVID-19 and find additional resources: [COVID-19: Know the Facts Find the Truth](#)



## Level: Moderate

Wastewater viral levels in your neighborhood indicate **moderate risk** of COVID-19 infection.

Based on this level, BPHC recommends the following practices to prevent COVID-19 in your community:

- If you are at [high risk of getting very sick](#), wear a [high-quality mask or respirator](#) in public indoor spaces
- If you have close contact with someone at [high risk of getting very sick](#), consider self-testing to detect infection before contact, and consider wearing a high-quality mask when indoors with them
- Stay up-to-date on [vaccinations](#).
- Seek testing and possible treatment if you get sick
- Stay home when sick and avoid contact with others who are sick
- Improve [indoor airflow and ventilation](#)
- Wash your hands often and cover coughs and sneezes
- Follow CDC recommendations for [isolation](#) if you have COVID-19 and for [what to do if you are exposed](#) to someone with COVID-19

## RESOURCES

- Find a [vaccination clinic](#) in your neighborhood
- Find a [testing site](#) or pickup a [free at-home test kit](#) in your neighborhood
- Find [treatment](#) for COVID-19 including [free telehealth](#) and [in home treatment](#).
- Call or visit the [Mayor's Health Line](#)
- Learn more about COVID-19 and find additional resources: [COVID-19: Know the Facts Find the Truth](#)



## Level: **Low**



Wastewater viral levels in your neighborhood indicate **low risk** of COVID-19 infection.

Based on this level, BPHC recommends the following practices to prevent COVID-19 in your community:

- **Continue to monitor wastewater levels and trends**
- Stay up-to-date on [vaccinations](#).
- Seek testing and possible treatment if you get sick
- Stay home when sick and avoid contact with others who are sick
- Improve [indoor airflow and ventilation](#)
- Wash your hands often and cover coughs and sneezes
- Follow CDC recommendations for [isolation](#) if you have COVID-19 and for [what to do if you are exposed](#) to someone with COVID-19

## RESOURCES

- Find a [vaccination clinic](#) in your neighborhood
- Find a [testing site](#) or pickup a [free at-home test kit](#) in your neighborhood
- Find [treatment](#) for COVID-19 including [free telehealth](#) and [in home treatment](#).
- Call or visit the [Mayor's Health Line](#)
- Learn more about COVID-19 and find additional resources: [COVID-19: Know the Facts Find the Truth](#)



## Level: **Very Low**

Wastewater viral levels in your neighborhood indicate **very low risk** of COVID-19 infection.

Based on this level, BPHC recommends the following practices to prevent COVID-19 in your community:

- **Continue to monitor wastewater levels and trends**
- Stay up-to-date on [vaccinations](#).
- Seek testing and possible treatment if you get sick
- Stay home when sick and avoid contact with others who are sick
- Improve [indoor airflow and ventilation](#)
- Wash your hands often and cover coughs and sneezes
- Follow CDC recommendations for [isolation](#) if you have COVID-19 and for [what to do if you are exposed](#) to someone with COVID-19

## RESOURCES

- Find a [vaccination clinic](#) in your neighborhood
- Find a [testing site](#) or pickup a [free at-home test kit](#) in your neighborhood
- Find [treatment](#) for COVID-19 including [free telehealth](#) and [in home treatment](#).
- Call or visit the [Mayor's Health Line](#)
- Learn more about COVID-19 and find additional resources: [COVID-19: Know the Facts Find the Truth](#)