



# Wastewater Epidemiology COVID-19 Report

**Updated:** 20-Feb-2024 | **Data Complete Through:** 14-Feb-2024

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Boston Public  
Health Commission

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Level: **Very High**

Level: **High**

Level: **Moderate**

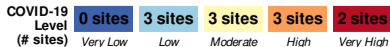
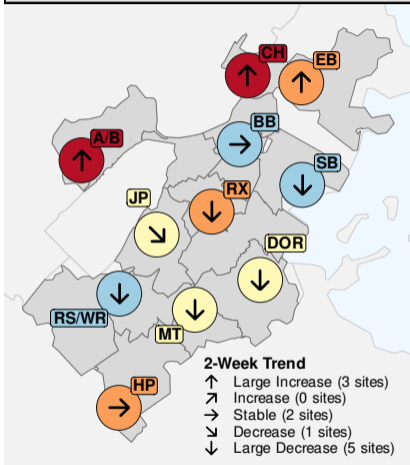
Level: **Low**

Level: **Very Low**



# Neighborhood Levels and Trends

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



## BOSTON CITYWIDE COVID-19 LEVEL & TRENDS

### COVID-19 LEVEL

# Moderate

971 copies/mL  
samples through 14-Feb-2024

### 2-WEEK TRENDS



Decrease  
-399 copies/mL (-29%)

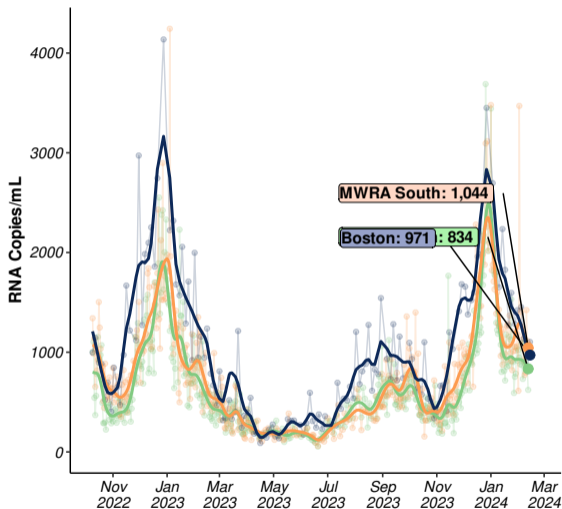
## NEIGHBORHOOD SITES COVID-19 LEVEL & TRENDS

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

**971**

*RNA copies/mL*

RANGE ACROSS 11  
NEIGHBORHOOD SITES

**448-4,551**

*RNA copies/mL*

Data through: 14-Feb-2024

## 2-WEEK TRENDS

*Boston*  
**Decreasing**

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

*MWRA North*  
**Stable**

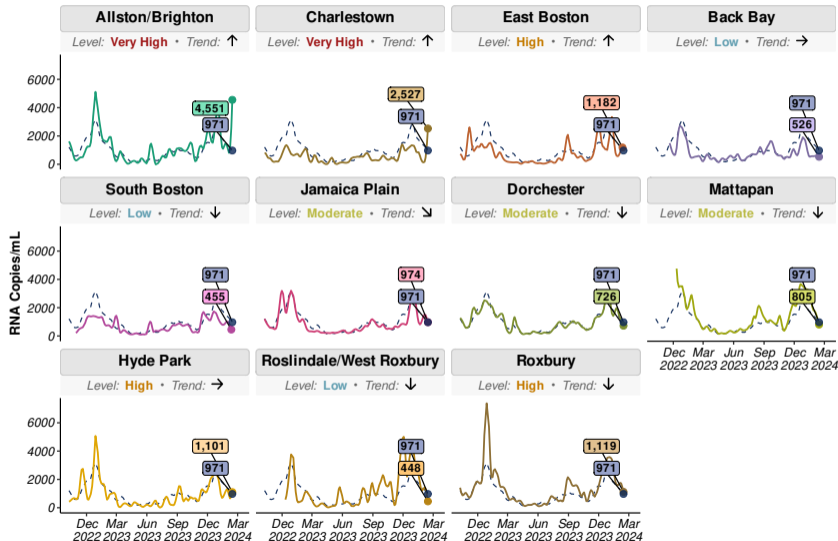
**-10%**  
over the past 14 days

*MWRA South*  
**Decreasing**

**-13%**  
over the past 14 days

Updated: 20-Feb-2024 | Samples through: 14-Feb-2024 (BPHC); 12-Feb-2024 (MWRA) | MWRA Data: <https://www.mwra.com/biobot/biobotdata.htm>

# BPHC Trend Overview by Neighborhood

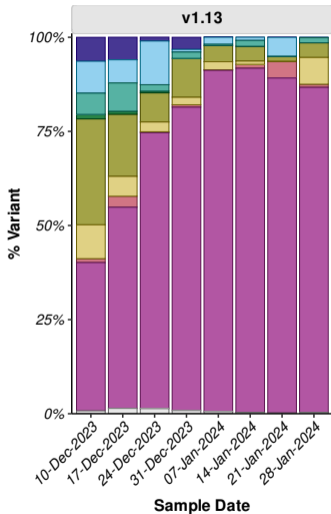


For each neighborhood, colored line and textbox shows the smoothed trend and most recent value in that neighborhood;

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



Variant	%
XBB	0.0%
XBB.1.5	0.1%
XBB.1.9	1.3%
FL.1.5.1	0.0%
EG.5	3.9%
HV.1	7.1%
BA.2.86	0.8%
JN.1	86.4%
Other	0.4%

Average variant percentage across all BPHC sites weighted by population size | Table shows variant percentages for samples collected the week of 28-Jan-2024 (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

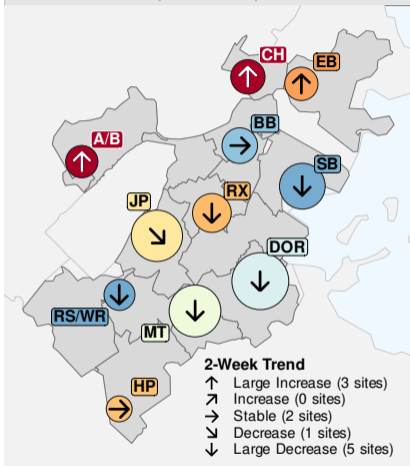
*For Additional Info See:*

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



# Neighborhood Levels and Data Table

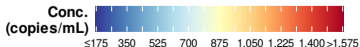
COVID-19 Wastewater Levels & Trends  
(14-Feb-2024)



NH	COVID-19 Wastewater Levels		2-Week Trends		
	Conc. (copies/mL)	Level	Trend	Diff. (copies/mL)	% Change
BOSTON	971	Moderate	Decrease	-399	-29%
A/B	4,551	Very High	Large Increase	+3,414	+300%
CH	2,527	Very High	Large Increase	+2,396	+1,842%
EB	1,182	High	Large Increase	+617	+109%
RX	1,119	High	Large Decrease	-527	-32%
HP	1,101	High	Stable	-140	-11%
JP	974	Moderate	Decrease	-380	-28%
MT	805	Moderate	Large Decrease	-988	-55%
DOR	726	Moderate	Large Decrease	-793	-52%
BB	526	Low	Stable	-51	-9%
SB	455	Low	Large Decrease	-559	-55%
RS/WR	448	Low	Large Decrease	-867	-66%

**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

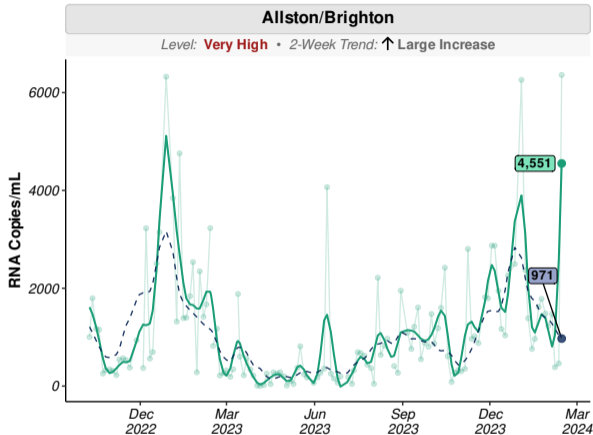


Level: **Very High**

- Average value in **A/B** over the past week: **4,551** copies/mL.
- This value is **very high** compared to past values and **higher** than the citywide average (**971** copies/mL).

Trend: **↑ Large Increase**

- Over the past two weeks, values in **A/B** are **increasing**.
- Change compared to two weeks ago: **+3,414** copies/mL (**+300%**).



Updated: 20-Feb-2024 | Samples through: 14-Feb-2024 (A/B);

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

# Back Bay

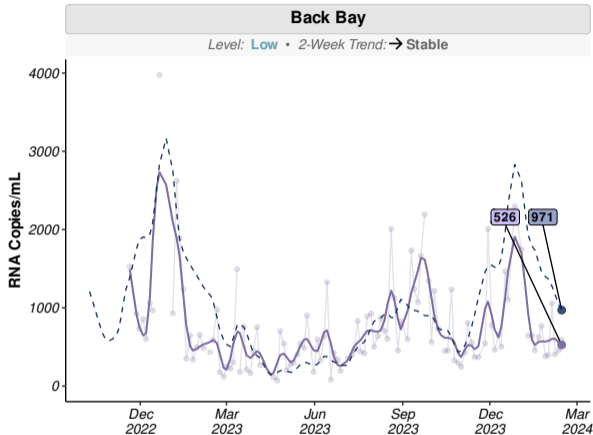


Level: **Low**

- Average value in **BB** over the past week: **526** copies/mL.
- This value is **low** compared to past values and **lower** than the citywide average (**971** copies/mL).

Trend: → **Stable**

- Over the past two weeks, values in **BB** are **stable**.
- Change compared to two weeks ago: **-51** copies/mL (**-9%**).



Updated: 20-Feb-2024 | Samples through: 14-Feb-2024 (BB);

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

# Charlestown

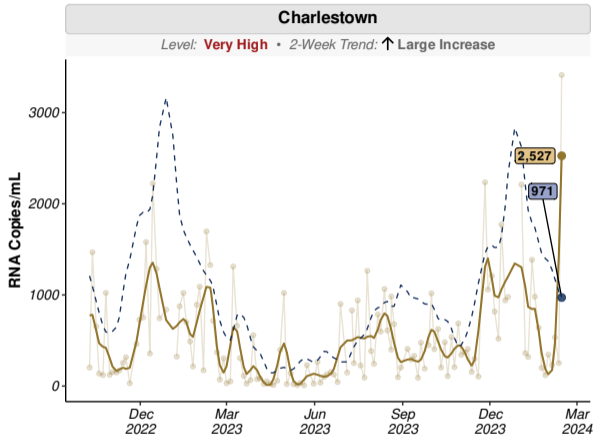


Level: **Very High**

- Average value in **CH** over the past week: **2,527** copies/mL.
- This value is **very high** compared to past values and **higher** than the citywide average (**971** copies/mL).

Trend: **↑ Large Increase**

- Over the past two weeks, values in **CH** are **increasing**.
- Change compared to two weeks ago: **+2,396** copies/mL (**+1,842%**).



Updated: 20-Feb-2024 | Samples through: 14-Feb-2024 (CH);

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

# Dorchester

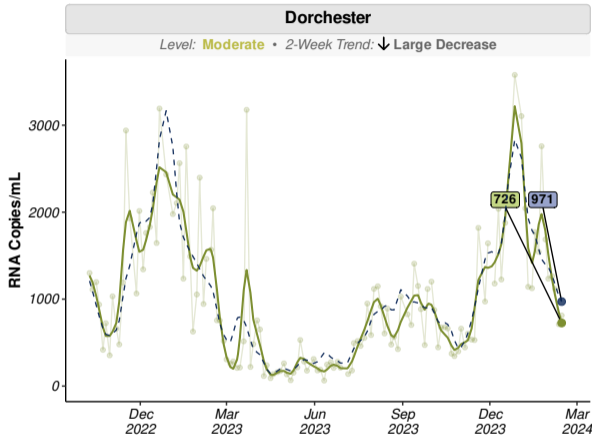


Level: **Moderate**

- Average value in **DOR** over the past week: **726** copies/mL.
- This value is **moderate** compared to past values and **similar** than the citywide average (**971** copies/mL).

Trend: **↓ Large Decrease**

- Over the past two weeks, values in **DOR** are **decreasing**.
- Change compared to two weeks ago: **-793** copies/mL (-52%).



Updated: 20-Feb-2024 | Samples through: 14-Feb-2024 (DOR);

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

# East Boston

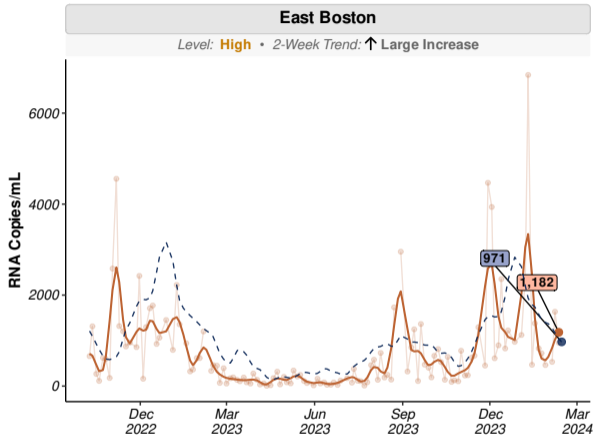


Level: **High**

- Average value in **EB** over the past week: **1,182** copies/mL.
- This value is **high** compared to past values and **similar** than the citywide average (**971** copies/mL).

Trend: **↑ Large Increase**

- Over the past two weeks, values in **EB** are **increasing**.
- Change compared to two weeks ago: **+617** copies/mL (**+109%**).



Updated: 20-Feb-2024 | Samples through: 11-Feb-2024 (EB);

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

# Hyde Park

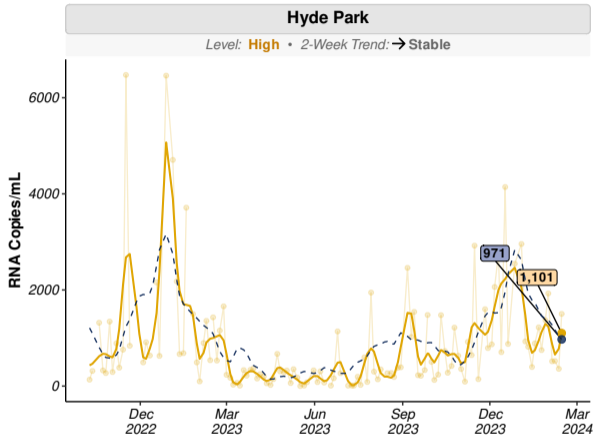


Level: **High**

- Average value in **HP** over the past week: **1,101** copies/mL.
- This value is **high** compared to past values and **similar** than the citywide average (**971** copies/mL).

Trend: → **Stable**

- Over the past two weeks, values in **HP** are **stable**.
- Change compared to two weeks ago: **-140** copies/mL (**-11%**).



Updated: 20-Feb-2024 | Samples through: 14-Feb-2024 (HP);

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

# Jamaica Plain

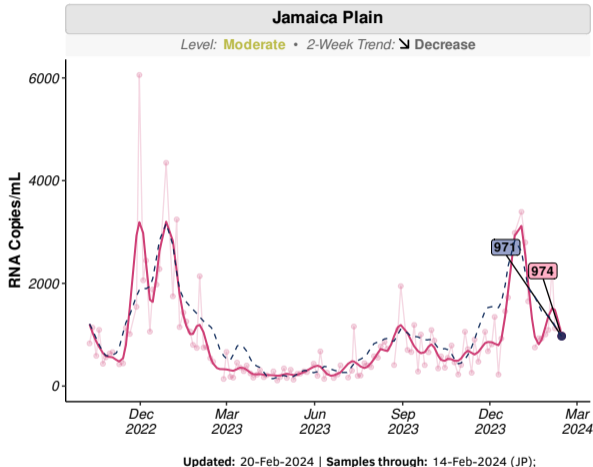


Level: **Moderate**

- Average value in **JP** over the past week: **974** copies/mL.
- This value is **moderate** compared to past values and **similar** than the citywide average (**971** copies/mL).

Trend: **Decrease**

- Over the past two weeks, values in **JP** are **decreasing**.
- Change compared to two weeks ago: **-380** copies/mL (**-28%**).



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

# Mattapan

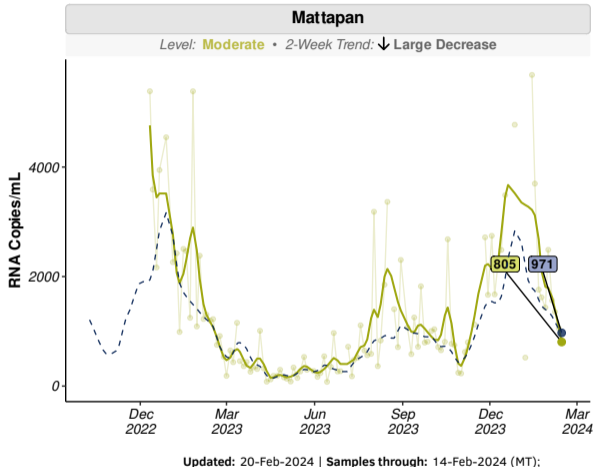


Level: **Moderate**

- Average value in **MT** over the past week: **805** copies/mL.
- This value is **moderate** compared to past values and **similar** than the citywide average (**971** copies/mL).

Trend: **↓ Large Decrease**

- Over the past two weeks, values in **MT** are **decreasing**.
- Change compared to two weeks ago: **-988** copies/mL (**-55%**).



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



# Roslindale/West Roxbury

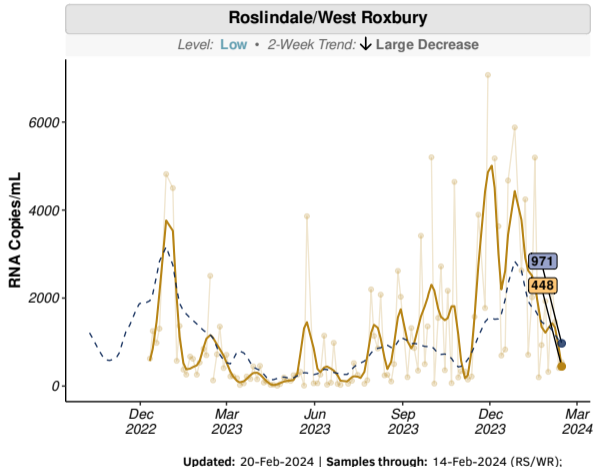


Level: **Low**

- Average value in **RS/WR** over the past week: **448** copies/mL.
- This value is **low** compared to past values and **lower** than the citywide average (**971** copies/mL).

Trend: **↓ Large Decrease**

- Over the past two weeks, values in **RS/WR** are **decreasing**.
- Change compared to two weeks ago: **-867** copies/mL (**-66%**).



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

# Roxbury

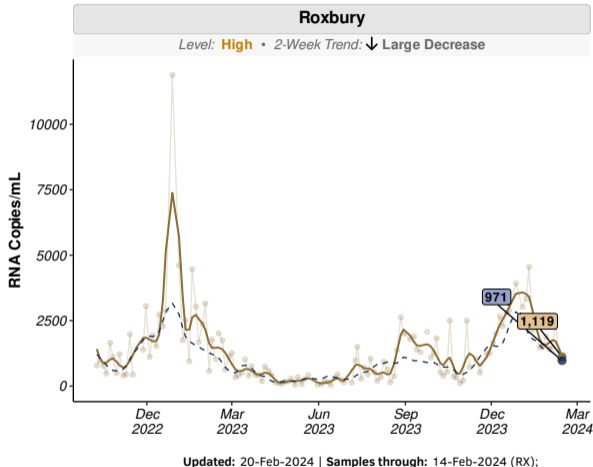


Level: **High**

- Average value in **RX** over the past week: **1,119** copies/mL.
- This value is **high** compared to past values and **similar** than the citywide average (**971** copies/mL).

Trend: **↓ Large Decrease**

- Over the past two weeks, values in **RX** are **decreasing**.
- Change compared to two weeks ago: **-527** copies/mL (**-32%**).



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

# South Boston

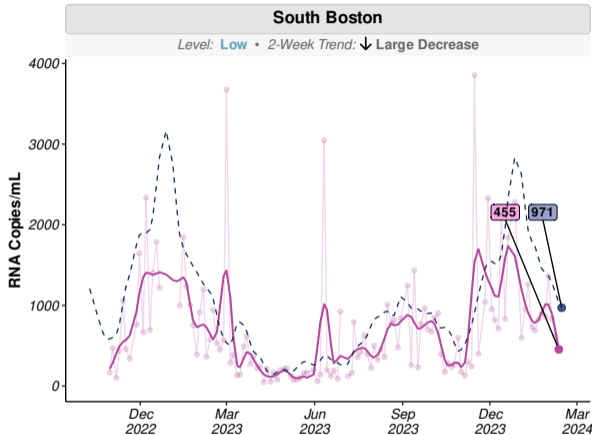


Level: **Low**

- Average value in **SB** over the past week: **455** copies/mL.
- This value is **low** compared to past values and **lower** than the citywide average (**971** copies/mL).

Trend: **↓ Large Decrease**

- Over the past two weeks, values in **SB** are **decreasing**.
- Change compared to two weeks ago: **-559** copies/mL (**-55%**).



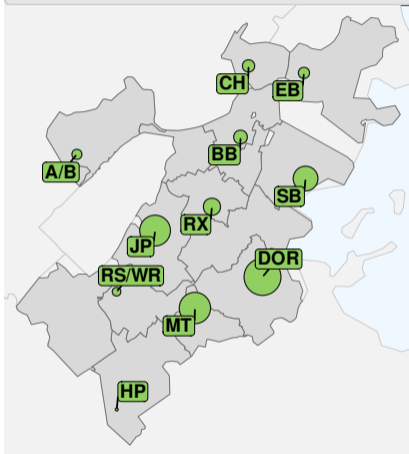
Updated: 20-Feb-2024 | Samples through: 11-Feb-2024 (SB);

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

# Site Status and Details



## Status of Sampling Sites (20-Feb-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](#)
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## 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](#)
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## 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

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## 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

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