Boston Wastewater Epidemiology Report

Updated: 10-Dec-2024 | **Data Complete Through**: 04-Dec-2024

wastewater@bphc.org

Boston Public
Health Commission

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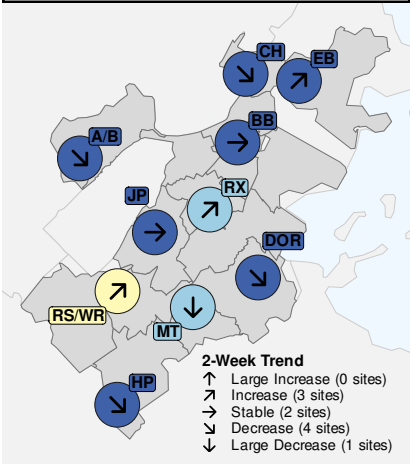
A Note About These Reports

The laboratory that tests Boston's wastewater changed on August 1, 2024. Because of differences in the methods used at the old laboratory and the new one, data may not be comparable before and after the change. The change is marked with a vertical red line line on figures in this report. BPHC cautions against drawing conclusions by comparing data to the left and right of this line. BPHC closely monitors the data and the methods used to communicate these results, and presents the best understanding of the data in these reports. A report with more information about the lab change will be made available on the BPHC Wastewater Monitoring web page.

Neighborhood Levels and Trends

COVID-19 Wastewater Levels & Trends (04-Dec-2024)



COVID-19 Level (# sites)	Very Low	Low	Moderate	High	Very High
	7 sites	2 sites	1 sites		

BOSTON CITYWIDE COVID-19 LEVEL & TRENDS

COVID-19 LEVEL	2-WEEK TRENDS
Very Low	↘
283 copies/mL samples through 04-Dec-2024	*Decrease* -200 copies/mL (-41%)

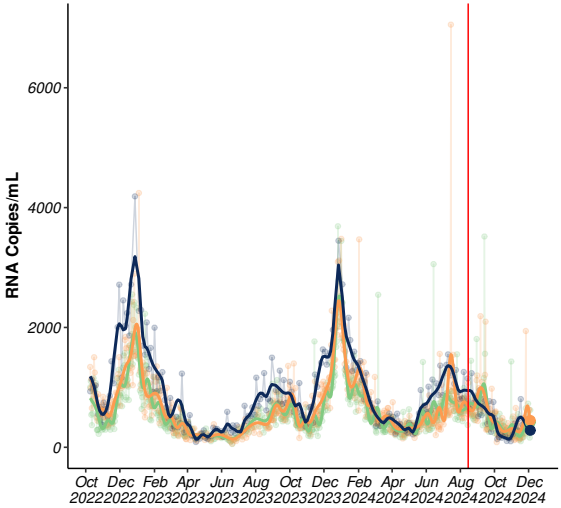
NEIGHBORHOOD SITES COVID-19 LEVEL & TRENDS

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

For additional details see:

- Results by Neighborhood
- Detailed Neighborhood Levels and Trends Table
- Trend and Level Category Definitions

Citywide Overview and Trends



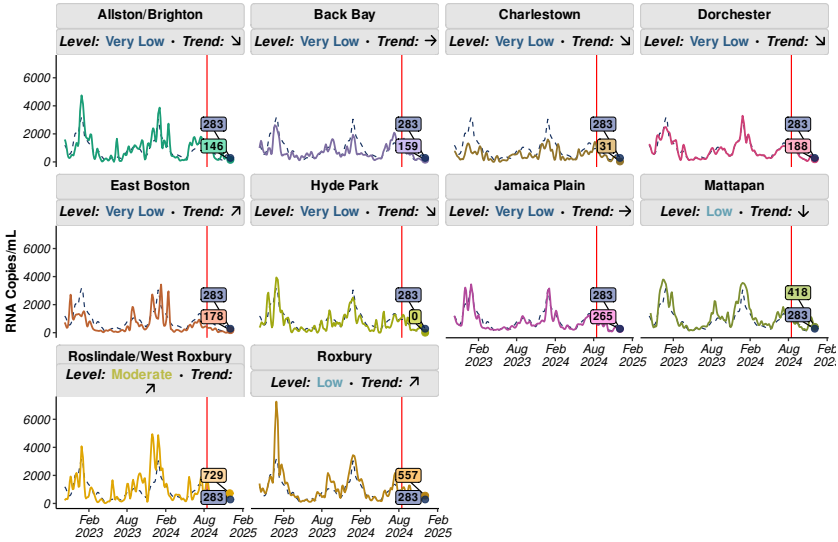
CITYWIDE AVERAGE	RANGE ACROSS 11 NEIGHBORHOOD SITES
283 *RNA copies/mL*	**0-729** *RNA copies/mL*

Data through: **04-Dec-2024**

2-WEEK TRENDS	
Boston **Decreasing**	**-41%** over the past 14 days
MWRA North **Increasing**	**+81%** over the past 14 days
MWRA South **Stable**	**+28%** over the past 14 days

Updated: 10-Dec-2024 | **Samples through:** 04-Dec-2024 (BPHC); 04-Dec-2024 (MWRA) | **MWRA Data:** https://www.mwra.com/biobot/biobotdata.htm

BPHC Trend Overview by Neighborhood



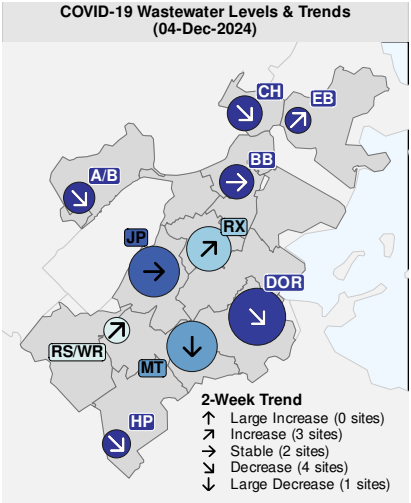
For each neighborhood, colored line and textbox shows the smoothed trend and most recent value in that neighborhood;

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.

The vertical red line marks the date of August 1, 2024, when the laboratory that tests Boston's wastewater changed.

To see details and interpretation of these results for an individual neighborhood see Results by Neighborhood.

Neighborhood Levels and Data Table



NH	COVID-19 Wastewater Levels		2-Week Trends		
	Conc. (copies/mL)	Level	Trend	Diff. (copies/mL)	% Change
BOSTON	**283**	**Very Low**	**Decrease**	**-200**	**-41%**
RS/WR	729	Moderate	Increase	+188	+35%
RX	557	Low	Increase	+227	+69%
MT	418	Low	Large Decrease	-607	-59%
JP	265	Very Low	Stable	-55	-17%
DOR	188	Very Low	Decrease	-270	-59%
EB	178	Very Low	Increase	+159	+827%
BB	159	Very Low	Stable	+49	+45%
A/B	146	Very Low	Decrease	-161	-53%
CH	31	Very Low	Decrease	-192	-86%
HP	0	Very Low	Decrease	-171	-99%

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)

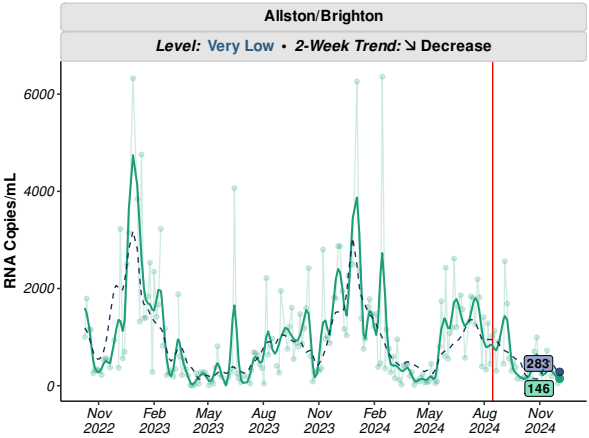
Allston/Brighton

Level: **Very Low**

- Average value in **A/B** over the past week: **146** copies/mL.
- This value is **very low** compared to past values and **similar** than the citywide average (**283** copies/mL).

Trend: ↘ **Decrease**

- Over the past two weeks, values in **A/B** are **decreasing**.
- Change compared to two weeks ago: **-161** copies/mL (**-53%**).



Updated: 10-Dec-2024 | **Samples through:** 04-Dec-2024 (A/B);

See recommended actions and resources based on levels and trends in this neighborhood.

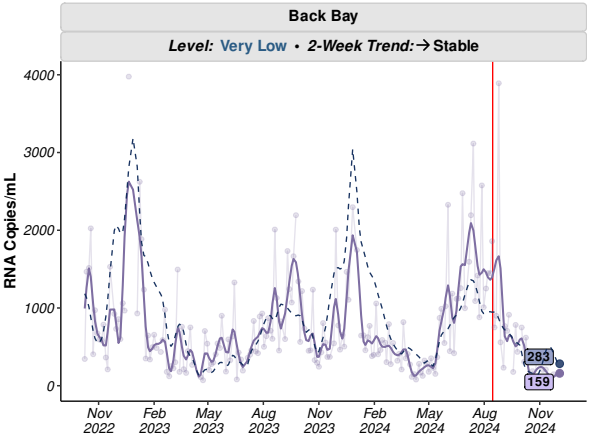
Back Bay

Level: **Very Low**

- Average value in **BB** over the past week: **159** copies/mL.
- This value is **very low** compared to past values and **similar** than the citywide average (**283** copies/mL).

Trend: → **Stable**

- Over the past two weeks, values in **BB** are **stable**.
- Change compared to two weeks ago: **+49** copies/mL (**+45%**).



Updated: 10-Dec-2024 | **Samples through:** 04-Dec-2024 (BB);

See recommended actions and resources based on levels and trends in this neighborhood.

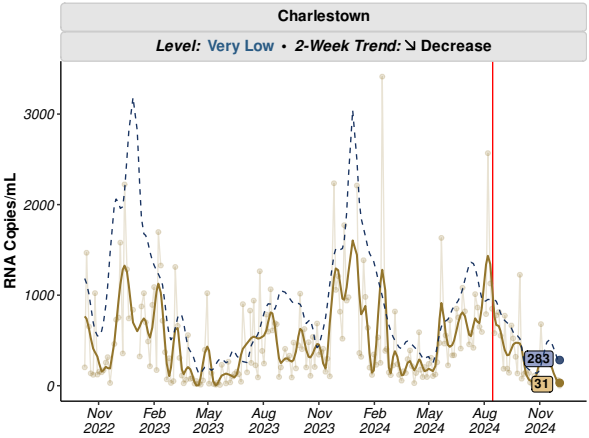
Charlestown

Level: **Very Low**

- Average value in **CH** over the past week: **31** copies/mL.
- This value is **very low** compared to past values and **similar** than the citywide average (**283** copies/mL).

Trend: ↘ **Decrease**

- Over the past two weeks, values in **CH** are **decreasing**.
- Change compared to two weeks ago: **-192** copies/mL (**-86%**).



Updated: 10-Dec-2024 | **Samples through:** 04-Dec-2024 (CH);

See recommended actions and resources based on levels and trends in this neighborhood.

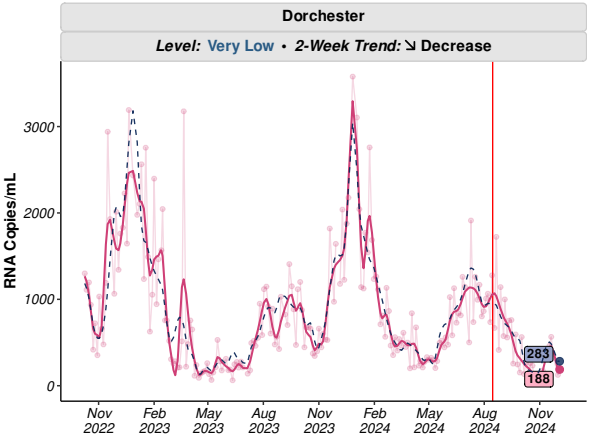
Dorchester

Level: **Very Low**

- Average value in **DOR** over the past week: **188** copies/mL.
- This value is **very low** compared to past values and **similar** than the citywide average (**283** copies/mL).

Trend: ↘ **Decrease**

- Over the past two weeks, values in **DOR** are **decreasing**.
- Change compared to two weeks ago: **-270** copies/mL (**-59%**).



Updated: 10-Dec-2024 | **Samples through:** 04-Dec-2024 (DOR);

See recommended actions and resources based on levels and trends in this neighborhood.

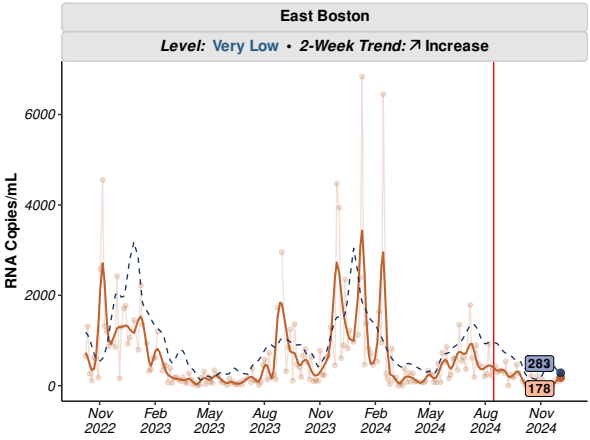
East Boston

Level: **Very Low**

- Average value in **EB** over the past week: **178** copies/mL.
- This value is **very low** compared to past values and **similar** than the citywide average (**283** copies/mL).

Trend: ↗ **Increase**

- Over the past two weeks, values in **EB** are **increasing**.
- Change compared to two weeks ago: **+159** copies/mL (**+827%**).



Updated: 10-Dec-2024 | **Samples through:** 04-Dec-2024 (EB);

See recommended actions and resources based on levels and trends in this neighborhood.

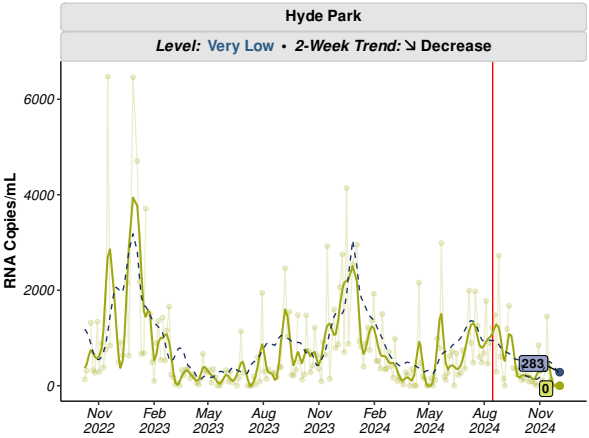
Hyde Park

Level: **Very Low**

- Average value in **HP** over the past week: **0** copies/mL.
- This value is **very low** compared to past values and **similar** than the citywide average (**283** copies/mL).

Trend: ↘ **Decrease**

- Over the past two weeks, values in **HP** are **decreasing**.
- Change compared to two weeks ago: **-171** copies/mL (**-99%**).



See recommended actions and resources based on levels and trends in this neighborhood.

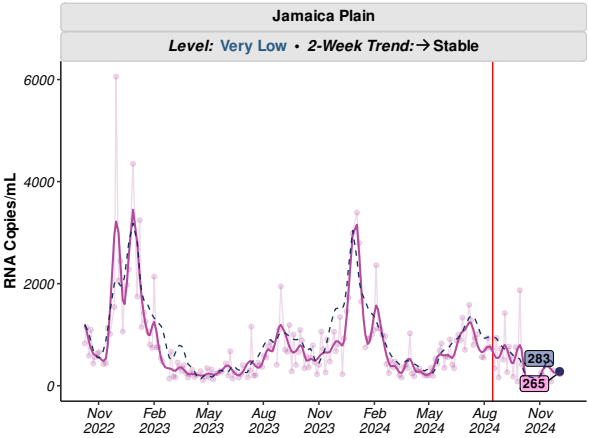
Jamaica Plain

Level: **Very Low**

- Average value in **JP** over the past week: **265** copies/mL.
- This value is **very low** compared to past values and **similar** than the citywide average (**283** copies/mL).

Trend: → **Stable**

- Over the past two weeks, values in **JP** are **stable**.
- Change compared to two weeks ago: **-55** copies/mL (**-17%**).



Updated: 10-Dec-2024 | **Samples through:** 04-Dec-2024 (JP);

See recommended actions and resources based on levels and trends in this neighborhood.

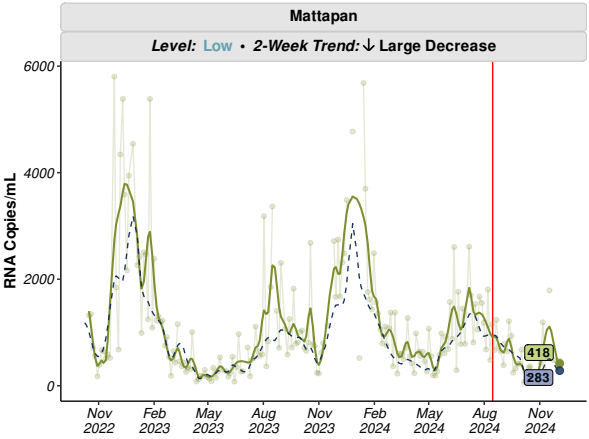
Mattapan

Level: **Low**

- Average value in **MT** over the past week: **418** copies/mL.
- This value is **low** compared to past values and **similar** than the citywide average (**283** copies/mL).

Trend: ↓ **Large Decrease**

- Over the past two weeks, values in **MT** are **decreasing**.
- Change compared to two weeks ago: **-607** copies/mL (**-59%**).



Updated: 10-Dec-2024 | **Samples through:** 04-Dec-2024 (MT);

See recommended actions and resources based on levels and trends in this neighborhood.

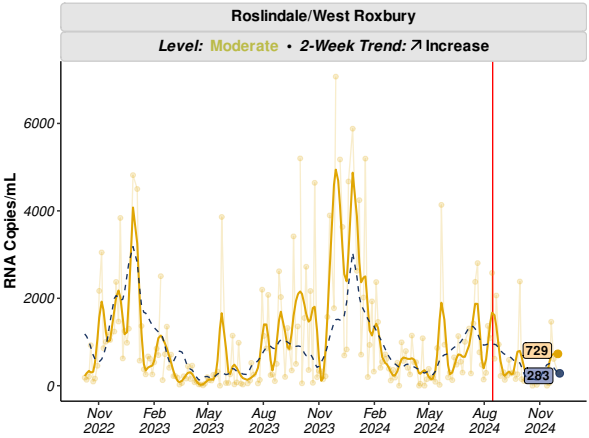
Roslindale/West Roxbury

Level: **Moderate**

- Average value in **RS/WR** over the past week: **729** copies/mL.
- This value is **moderate** compared to past values and **higher** than the citywide average (**283** copies/mL).

Trend: ↗ **Increase**

- Over the past two weeks, values in **RS/WR** are **increasing**.
- Change compared to two weeks ago: **+188** copies/mL (**+35%**).



Updated: 10-Dec-2024 | **Samples through:** 01-Dec-2024 (RS/WR);

See recommended actions and resources based on levels and trends in this neighborhood.

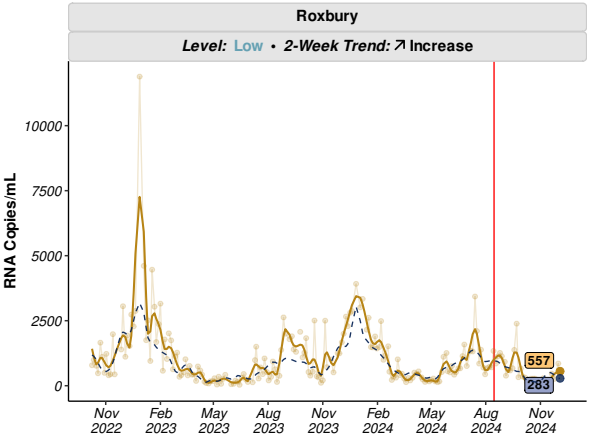
Roxbury

Level: **Low**

- Average value in **RX** over the past week: **557** copies/mL.
- This value is **low** compared to past values and **similar** than the citywide average (**283** copies/mL).

Trend: ↗ **Increase**

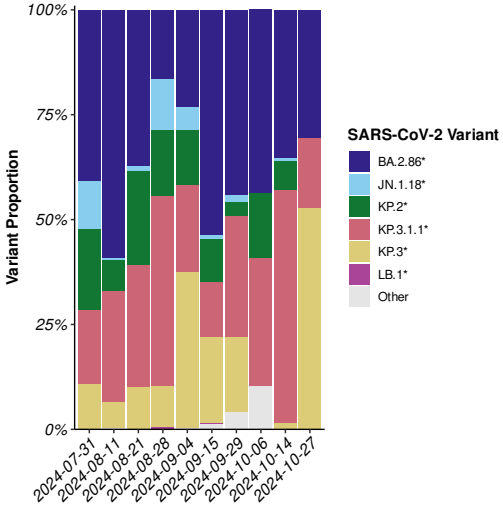
- Over the past two weeks, values in **RX** are **increasing**.
- Change compared to two weeks ago: **+227** copies/mL (**+69%**).



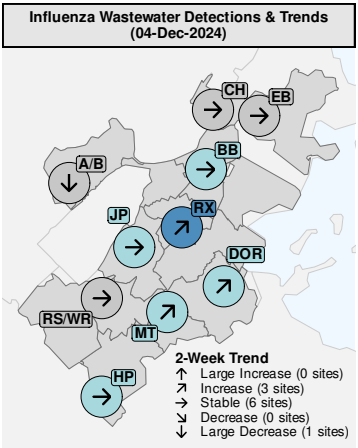
Updated: 10-Dec-2024 | **Samples through:** 04-Dec-2024 (RX);

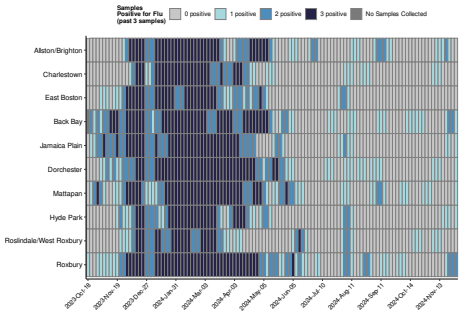
See recommended actions and resources based on levels and trends in this neighborhood.

Percent Variant Lineages (Citywide)



Influenza Detections in Wastewater

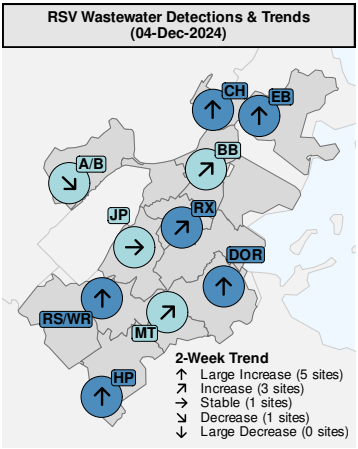


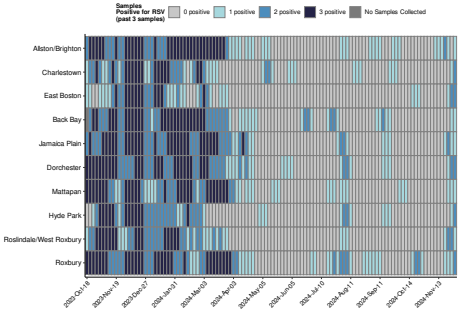


# Samples Positive for Flu (Past 3 Samples)	4 sites	5 sites	1 sites	0 sites	0 sites
	0 positive	*1 positive*	*2 positive*	*3 positive*	*No Samples Collected*

This map depicts the number of times influenza virus was detected in wastewater at the 3 most-recent samples (approximately the past week) at each of the neighborhood sampling locations.

RSV Detections in Wastewater





# Samples Positive for RSV (Past 3 Samples)	0 sites	4 sites	6 sites	0 sites	0 sites
	0 positive	*1 positive*	*2 positive*	*3 positive*	*No Samples Collected*

RSV = Respiratory Syncytial Virus

This map depicts the number of times RSV was detected in wastewater at the 3 most-recent samples (approximately the past week) at each of the neighborhood sampling locations.

COVID-19 Wastewater 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