#### **North Head Wastewater Treatment Plant**

# 2019-20 Air quality pollution monitoring summaries

# Sydney WATER

| Licensee: Sydney Water |
|------------------------|
| PO Box 399             |
| PARRAMATTA NSW 2124    |
|                        |

EPL 378

Summary period: 1-07-2019 to 30-06-2020

Date published: 10-08-2020

| EPA Point 33          | Point desci        | Point description: Ventilation outlet at Scotts Creek |                    |         |         |         |                  |                  |  |  |
|-----------------------|--------------------|---|--------------------|---------|---------|---------|------------------|------------------|--|--|
| pollutant             | unit of<br>measure | sampling<br>frequency                                 | number of samples  | minimum | average | maximum | maximum<br>limit | % within limits* |  |  |
| hydrogen sulphide gas | mg/m <sup>3</sup>  | 30 minutes  | 17564 <sup>1</sup> | <0.004  | <0.004  | 0.058   | 5                | 100%             |  |  |

| EPA Point 34          | Point descr        | Point description: Ventilation outlet at Lane Cove River West |                      |         |         |         |                  |                  |  |  |
|-----------------------|--------------------|---|----------------------|---------|---------|---------|------------------|------------------|--|--|
| pollutant             | unit of<br>measure | sampling<br>frequency   | number of<br>samples | minimum | average | maximum | maximum<br>limit | % within limits* |  |  |
| hydrogen sulphide gas | mg/m <sup>3</sup>  | 30 minutes  | 17566                | <0.004  | <0.004  | 0.101   | 5                | 100%             |  |  |

| EPA Point 35          | Point descr        | Point description: Ventilation outlet at North Head STP for Northside Storage Tunnel |                      |         |         |         |                  |                  |  |  |  |
|-----------------------|--------------------|--|----------------------|---------|---------|---------|------------------|------------------|--|--|--|
| pollutant             | unit of<br>measure | sampling<br>frequency  | number of<br>samples | minimum | average | maximum | maximum<br>limit | % within limits* |  |  |  |
| hydrogen sulphide gas | mg/m <sup>3</sup>  | 30 minutes   | 17566 <sup>2</sup>   | <0.01   | 0.04    | 4.82    | 5                | 100%             |  |  |  |

\*Maximum limits for air quality are based on the Protection of the Environment Operations (Clean Air) Regulation 2010 - Schedule 4 Standards of concentration for scheduled

1 The expected number of samples for the year was 17566. Data not available 03/01/2020 at 09:30am and 14/10/2019 at 09:30am

2 The expected number of samples for the year was 17568. NST scrubber was offline for maintenance on 04/01/2020 at 8:00pm and 8:30pm

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| EPA Point 63          | Point description: Central scrubber outlet at North Head STP |                       |                      |         |         |         |                  |                  |  |  |
|-----------------------|--|-----------------------|----------------------|---------|---------|---------|------------------|------------------|--|--|
| pollutant             | unit of<br>measure   | sampling<br>frequency | number of<br>samples | minimum | average | maximum | maximum<br>limit | % within limits* |  |  |
| chlorine gas          | mg/m <sup>3</sup>  | 30 minutes            | 17568                | <0.15   | 0.99    | 8.55    | 200              | 100%             |  |  |
| hydrogen sulphide gas | mg/m <sup>3</sup>  | 30 minutes            | 17568                | <0.075  | <0.075  | 1.83    | 5                | 100%             |  |  |

| EPA Point 66          | Point description: Bio Trickling Filter / Standby Scrubber at North Head STP |                       |                      |         |         |         |                  |                    |  |  |
|-----------------------|--|-----------------------|----------------------|---------|---------|---------|------------------|--------------------|--|--|
| pollutant             | unit of<br>measure   | sampling<br>frequency | number of<br>samples | minimum | average | maximum | maximum<br>limit | % within limits*   |  |  |
| chlorine gas          | mg/m <sup>3</sup>  | 30 minutes            | 17568                | <0.59   | <0.59   | 2.40    | 200              | 100%               |  |  |
| hydrogen sulphide gas | mg/m <sup>3</sup>  | 30 minutes            | 17568                | <0.071  | <0.071  | 22.066  | 5                | 99.9% <sup>3</sup> |  |  |

\*Maximum limits for air quality are based on the Protection of the Environment Operations (Clean Air) Regulation 2010 - Schedule 4 Standards of concentration for scheduled premises: general activities and plant.

<sup>3</sup>Commentary for Point 66 exceedances are included in 2019-20 monthly summary report.



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| EPA Point 64    | Point description: Air sampling outlet of cogeneration facility unit 1 at North Head STP |                       |                      |                   |                |                   |  |  |  |
|-----------------|--|-----------------------|----------------------|-------------------|----------------|-------------------|--|--|--|
| pollutant       | unit of<br>measure   | sampling<br>frequency | number of<br>samples | minimum<br>result | mean<br>result | maximum<br>result |  |  |  |
| nitrogen oxides | mg/m <sup>3</sup>  | yearly                | 3                    | 373               | 388            | 402               |  |  |  |

Yearly measurement was taken on 21-05-2020.

| EPA Point 65    | Point description: Air sampling outlet of cogeneration facility unit 2 at North Head STP |                       |                      |                   |                |                   |  |  |  |
|-----------------|--|-----------------------|----------------------|-------------------|----------------|-------------------|--|--|--|
| pollutant       | unit of<br>measure   | sampling<br>frequency | number of<br>samples | minimum<br>result | mean<br>result | maximum<br>result |  |  |  |
| nitrogen oxides | mg/m <sup>3</sup>  | yearly                | 3                    | 433               | 446            | 464               |  |  |  |

Yearly measurement was taken on 01-05-2020.