



2020 FIVE YEAR MOVING AVERAGE STATUS REPORT

January, 2020

| Member | Fractional Share of the Contribution ("Percent Share") | | | | | | 5 Year Moving Average | |
|---------------|--|---------|---------|---------|---------|---------|-----------------------|----------------------|
| | Measuring Year (Oct - Sept) | | | | | | Current Average (2) | Previous Average (3) |
| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020(1) | | |
| Clark | 7.24% | 6.02% | 7.44% | 10.17% | 8.87% | 7.94% | 8.09% | 7.95% |
| Cranford | 8.99% | 5.98% | 6.69% | 7.25% | 8.23% | 11.87% | 8.00% | 7.43% |
| Garwood | 2.88% | 1.89% | 3.31% | 2.74% | 2.22% | 2.06% | 2.44% | 2.61% |
| Kenilworth | 2.61% | 5.33% | 5.61% | 4.09% | 5.33% | 3.56% | 4.78% | 4.59% |
| Mountainside | 3.39% | 3.89% | 3.88% | 3.68% | 3.40% | 2.60% | 3.49% | 3.65% |
| Rahway | 14.41% | 18.87% | 13.71% | 14.04% | 18.35% | 22.58% | 17.51% | 15.88% |
| Roselle Park | 1.38% | 1.62% | 1.04% | 0.84% | 1.02% | 2.26% | 1.36% | 1.18% |
| Scotch Plains | 7.32% | 4.62% | 5.15% | 5.88% | 4.85% | 4.03% | 4.91% | 5.56% |
| Springfield | 11.08% | 9.97% | 9.18% | 9.28% | 8.96% | 9.45% | 9.37% | 9.69% |
| Westfield | 13.49% | 18.87% | 16.26% | 14.79% | 15.52% | 14.08% | 15.90% | 15.79% |
| Woodbridge | 27.21% | 22.94% | 27.73% | 27.24% | 23.26% | 19.57% | 24.15% | 25.68% |
| | 100.00% | 100.00% | 100.00% | 100.00% | 100.01% | 100.00% | 100.00% | 100.01% |

Notes:

- (1) Figures computed based on Flow, BOD and TSS data received as of reporting month.
- (2) Five year moving average consisting of 2016, 2017, 2018, 2019, and month to date for 2020
- (3) Five year moving average consisting of 2015, 2016, 2017, 2018, and 2019



2020 Town Annual Percent Share January, 2020

| Member | Average Daily Flow (MGD) | | Biochemical Oxygen Demand (Tons/Day) | | Total Suspended Solids (Tons/Day) | | Annual Percent Share | | |
|-------------------|--------------------------|-------|--------------------------------------|-------|-----------------------------------|-------|----------------------|---------|---------|
| | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2019(3) | 2020 |
| Clark | 1.72 | 1.54 | 1.40 | 1.80 | 1.54 | 1.61 | 7.78% | 8.33% | 7.94% |
| Cranford | 3.71 | 3.22 | 1.49 | 2.01 | 2.44 | 2.46 | 11.66% | 9.95% | 11.87% |
| Garwood | 0.75 | 0.56 | 0.32 | 0.35 | 0.51 | 0.43 | 2.43% | 2.33% | 2.06% |
| Kenilworth | 1.59 | 0.96 | 0.70 | 0.61 | 1.11 | 0.74 | 5.27% | 5.30% | 3.56% |
| Mountainside | 0.78 | 0.71 | 0.30 | 0.44 | 0.50 | 0.54 | 2.40% | 2.90% | 2.60% |
| Rahway | 5.24 | 5.95 | 2.41 | 3.94 | 3.74 | 4.70 | 17.68% | 18.01% | 22.58% |
| Roselle Park | 0.66 | 0.57 | 0.30 | 0.41 | 0.49 | 0.48 | 2.24% | 1.61% | 2.26% |
| Scotch Plains | 1.37 | 1.10 | 0.54 | 0.68 | 0.89 | 0.84 | 4.27% | 4.56% | 4.03% |
| Springfield | 2.94 | 2.55 | 1.27 | 1.61 | 2.02 | 1.96 | 9.59% | 9.28% | 9.45% |
| Westfield | 4.52 | 3.76 | 2.20 | 2.44 | 3.36 | 2.91 | 15.76% | 15.64% | 14.08% |
| Woodbridge (1)(2) | 6.54 | 5.13 | 2.88 | 3.58 | 4.14 | 3.91 | 20.92% | 22.09% | 19.57% |
| Totals: | 29.82 | 26.04 | 13.81 | 17.88 | 20.74 | 20.57 | 100.00% | 100.00% | 100.00% |

Equations

Assumptions: 200 gpd flow per unit at 200 mg/L BOD and TSS concentrations

- (a) Flow Adj: [Total Adjusted Dwelling Units] x (0.0002 MGD)
- (b) BOD Adj: [Total Adjusted Dwelling Units] x (0.0002 MGD) x (200 mg/L) x (8.34 lbs/g) / (2000 lbs/ton)
- (c) TSS Adj: [Total Adjusted Dwelling Units] x (0.0002 MGD) x (200 mg/L) x (8.34 lbs/g) / (2000 lbs/ton)

Notes:

- (1) Woodbridge MGD Adjustment includes a 0.50 MGD flow credit per section 11.5 of the 1995 Agreement
- (2) Woodbridge TSS Adjustment includes an 833 lbs/day credit per section 11.5 of the 1995 Agreement
- (3) 2019 blended rate of old and new methods



2020 Intermunicipal Adjustment Report January, 2020

| Member | Dwelling Unit Quantity | | | Average Daily Flow (MGD) | | | Average BOD (Tons/Day) | | | Average TSS (Tons/Day) | | |
|-------------------|------------------------|-----------|------------------|--------------------------|----------------|------------|------------------------|----------------|-----------|------------------------|----------------|-----------|
| | Bill To | Credit To | Total Adjustment | Average Flow | Adjustment (a) | Final Flow | Average BOD | Adjustment (b) | Final BOD | Average TSS | Adjustment (c) | Final TSS |
| Clark | 479 | 0 | 479 | 1.45 | 0.0958 | 1.54 | 1.72 | 0.0799 | 1.80 | 1.53 | 0.0799 | 1.61 |
| Cranford | 242 | 1,092 | -850 | 3.39 | -0.1700 | 3.22 | 2.16 | -0.1418 | 2.01 | 2.61 | -0.1418 | 2.46 |
| Garwood | 54 | 110 | -56 | 0.57 | -0.0112 | 0.56 | 0.36 | -0.0093 | 0.35 | 0.44 | -0.0093 | 0.43 |
| Kenilworth | 62 | 38 | 24 | 0.96 | 0.0048 | 0.96 | 0.61 | 0.0040 | 0.61 | 0.73 | 0.0040 | 0.74 |
| Mountainside | 105 | 339 | -234 | 0.75 | -0.0468 | 0.71 | 0.48 | -0.0390 | 0.44 | 0.58 | -0.0390 | 0.54 |
| Rahway | 13 | 15 | -2 | 5.95 | -0.0004 | 5.95 | 3.94 | -0.0003 | 3.94 | 4.70 | -0.0003 | 4.70 |
| Roselle Park | 38 | 117 | -79 | 0.58 | -0.0158 | 0.57 | 0.42 | -0.0132 | 0.41 | 0.49 | -0.0132 | 0.48 |
| Scotch Plains | 66 | 413 | -347 | 1.16 | -0.0694 | 1.10 | 0.74 | -0.0579 | 0.68 | 0.89 | -0.0579 | 0.84 |
| Springfield | 0 | 186 | -186 | 2.59 | -0.0372 | 2.55 | 1.65 | -0.0310 | 1.61 | 1.99 | -0.0310 | 1.96 |
| Westfield | 1,425 | 175 | 1,250 | 3.51 | 0.2500 | 3.76 | 2.23 | 0.2085 | 2.44 | 2.70 | 0.2085 | 2.91 |
| Woodbridge (1)(2) | 10 | 9 | 1 | 5.63 | -0.4998 | 5.13 | 3.58 | 0.0002 | 3.58 | 4.33 | -0.4163 | 3.91 |
| Totals: | 2,494 | 2,494 | 0 | 26.54 | -0.5000 | 26.04 | 17.88 | 0.0000 | 17.88 | 20.99 | -0.4165 | 20.57 |

Equations

Assumptions: 200 gpd flow per unit at 200 mg/L BOD and TSS concentrations

- (a) Flow Adj: [Total Adjusted Dwelling Units] x (0.0002 MGD)
- (b) BOD Adj: [Total Adjusted Dwelling Units] x (0.0002 MGD) x (200 mg/L) x (8.34 lbs/g) / (2000 lbs/ton)
- (c) TSS Adj: [Total Adjusted Dwelling Units] x (0.0002 MGD) x (200 mg/L) x (8.34 lbs/g) / (2000 lbs/ton)

Notes:

- (1) Woodbridge MGD Adjustment includes a 0.50 MGD flow credit per section 11.5 of the 1995 Agreement
- (2) Woodbridge TSS Adjustment includes an 833 lbs/day credit per section 11.5 of the 1995 Agreement



Member BOD and TSS Loading Contribution January, 2020

| Member | Average Daily Industrial Loading (1) | | Average Daily Flow (MGD) | Member Contribution | | | |
|---------------|--------------------------------------|----------------|--------------------------|---------------------|----------------|----------------|----------------|
| | BOD (Tons/Day) | TSS (Tons/Day) | | Domestic Loading | | Total Loading | |
| | | | | BOD (Tons/Day) | TSS (Tons/Day) | BOD (Tons/Day) | TSS (Tons/Day) |
| Clark | 0.80 | 0.42 | 1.45 | 0.92 | 1.11 | 1.72 | 1.53 |
| Cranford | | | 3.39 | 2.16 | 2.61 | 2.16 | 2.61 |
| Garwood | | | 0.57 | 0.36 | 0.44 | 0.36 | 0.44 |
| Kenilworth | | | 0.96 | 0.61 | 0.73 | 0.61 | 0.73 |
| Mountainside | | | 0.75 | 0.48 | 0.58 | 0.48 | 0.58 |
| Rahway | 0.16 | 0.13 | 5.95 | 3.78 | 4.57 | 3.94 | 4.70 |
| Roselle Park | 0.05 | 0.04 | 0.58 | 0.37 | 0.45 | 0.42 | 0.49 |
| Scotch Plains | | | 1.16 | 0.74 | 0.89 | 0.74 | 0.89 |
| Springfield | | | 2.59 | 1.65 | 1.99 | 1.65 | 1.99 |
| Westfield | | | 3.51 | 2.23 | 2.70 | 2.23 | 2.70 |
| Woodbridge | | | 5.63 | 3.58 | 4.33 | 3.58 | 4.33 |
| Totals: | 1.01 | 0.59 | 26.54 | 16.87 | 20.40 | 17.88 | 20.99 |

Notes:

- (1) As measured and reported by the RVSA SIU IPP Industrial Loading



2020 Plant Influent Loading January, 2020

| | 2019 | | | 2020 | | | | | | | | | Average To Date |
|--|-------|-------|-------|-------|------|------|------|------|------|------|------|------|-----------------|
| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | |
| Plant Influent Flow and Sample Data | | | | | | | | | | | | | |
| Avg. Daily Flow (MGD) (1) | 22.94 | 22.96 | 33.86 | 26.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 26.54 |
| Avg. BOD (mg/l) (2) | 146 | 147 | 155 | 187 | | | | | | | | | 159 |
| Avg. TSS (mg/l) (2) | 206 | 188 | 150 | 223 | | | | | | | | | 191.66 |
| Total Influent Loading (a)(b) | | | | | | | | | | | | | |
| BOD (Tons/Day) | 13.97 | 14.08 | 21.88 | 20.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 17.63 |
| TSS (Tons/Day) | 19.71 | 18.00 | 21.18 | 24.52 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 20.85 |
| Total Industrial Contribution (3) | | | | | | | | | | | | | |
| BOD (Tons/Day) | 0.48 | 0.98 | 1.59 | | | | | | | | | | 1.02 |
| TSS (Tons/Day) | 0.27 | 0.57 | 0.97 | | | | | | | | | | 0.60 |
| Total Domestic Influent Loading | | | | | | | | | | | | | |
| BOD (Tons/Day) | 13.49 | 13.10 | 20.30 | 20.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 16.87 |
| TSS (Tons/Day) | 19.44 | 17.43 | 20.21 | 24.52 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 20.40 |

Equations

- (a) $\text{BOD Loading (Tons/Day)} = \text{Average Daily Flow (MGD)} \times \text{Avg BOD (mg/L)} \times (8.34 \text{ lbs/gal}) / (2000 \text{ lbs/ton})$
- (b) $\text{TSS Loading (Tons/Day)} = \text{Average Daily Flow (MGD)} \times \text{Avg TSS (mg/L)} \times (8.34 \text{ lbs/gal}) / (2000 \text{ lbs/ton})$

Notes:

- (1) Average Daily Flow = RV12 + RV14 + RV31
- (2) BOD and TSS Concentrations measured at the RVSA Raw Influent Sampler as reported to the NJDEP
- (3) As measured and reported by the RVSA SIU IPP Industrial Loading



2020 Average Industrial TSS Loading Report January, 2020

| | | Average Daily TSS Loading (Tons/Day) | | | | | | | | | | | AVG T/D | Town Total | |
|--|--------------|--------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|---------------|-----------|
| | | Oct 31 | Nov 30 | Dec 31 | Jan 31 | Feb 29 | Mar 31 | Apr 30 | May 31 | Jun 30 | Jul 31 | Aug 31 | | | Sep 30 |
| Kerry 1 | Clark | 0.002 | 0.003 | 0.002 | | | | | | | | | | 0.0024 | 0.42000 |
| Kerry 2 | Clark | 0.011 | 0.004 | 0.008 | | | | | | | | | | 0.0075 | |
| Kerry 3 | Clark | 0.003 | 0.019 | 0.004 | | | | | | | | | | 0.0089 | |
| Kerry 4 | Clark | 0.110 | 0.381 | 0.709 | | | | | | | | | | 0.3998 | |
| B&M Finishers | Kenilworth | 0.000 | 0.000 | 0.000 | | | | | | | | | | 0.0000 | 0.00000 |
| Kenilworth Anodizing | Kenilworth | 0.000 | 0.000 | 0.000 | | | | | | | | | | 0.0000 | |
| American Aluminum | Mountainside | 0.002 | 0.001 | 0.002 | | | | | | | | | | 0.0014 | 0.00000 |
| Clean Haven | Rahway | | | | | | | | | | | | | | |
| Guest Packaging 02 | Rahway | 0.001 | 0.002 | 0.003 | | | | | | | | | | 0.0022 | 0.13000 |
| Guest Packaging 03 | Rahway | 0.001 | 0.002 | 0.002 | | | | | | | | | | 0.0015 | |
| Merck 007 | Rahway | 0.017 | 0.013 | 0.016 | | | | | | | | | | 0.0155 | |
| Merck 012 | Rahway | 0.090 | 0.081 | 0.144 | | | | | | | | | | 0.1049 | |
| Quala Systems | Rahway | 0.002 | 0.016 | 0.009 | | | | | | | | | | 0.0089 | |
| Suez Water Rahway | Rahway | 0.001 | 0.002 | 0.001 | | | | | | | | | | 0.0013 | |
| Crossfield Products (Not currently an SIU) | Roselle Park | 0.001 | | | | | | | | | | | | 0.0010 | 0.04000 |
| Merck Kenilworth (formerly Schering) | Roselle Park | 0.024 | 0.040 | 0.064 | | | | | | | | | | 0.0426 | |
| Valcor Engineering | Springfield | 0.000 | 0.003 | 0.003 | | | | | | | | | | 0.0020 | 0.00000 |
| BASF 1 | Woodbridge | 0.004 | 0.003 | 0.001 | | | | | | | | | | 0.0025 | 0.00000 |
| BASF 2 | Woodbridge | 0.002 | 0.001 | 0.001 | | | | | | | | | | 0.0010 | |
| Gentek Building Products | Woodbridge | 0.000 | 0.000 | | | | | | | | | | | 0.0000 | |
| Total Tons | | 0.271 | 0.570 | 0.968 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.6035 | 0.59000 |



2020 Average Industrial BOD Loading Report January, 2020

| | | Average Daily BOD Loading (Tons/Day) | | | | | | | | | | | | AVG T/D | Town Total |
|--|--------------|--------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|---------------|
| | | Oct 31 | Nov 30 | Dec 31 | Jan 31 | Feb 29 | Mar 31 | Apr 30 | May 31 | Jun 30 | Jul 31 | Aug 31 | Sep 30 | | |
| Kerry 1 | Clark | 0.002 | 0.003 | 0.002 | | | | | | | | | | 0.0023 | 0.80000 |
| Kerry 2 | Clark | 0.062 | 0.036 | 0.022 | | | | | | | | | | 0.0400 | |
| Kerry 3 | Clark | 0.073 | 0.033 | 0.012 | | | | | | | | | | 0.0393 | |
| Kerry 4 | Clark | 0.079 | 0.693 | 1.380 | | | | | | | | | | 0.7174 | |
| B&M Finishers | Kenilworth | 0.000 | 0.000 | 0.000 | | | | | | | | | | 0.0000 | 0.00000 |
| Kenilworth Anodizing | Kenilworth | 0.000 | 0.000 | 0.000 | | | | | | | | | | 0.0000 | |
| American Aluminum | Mountainside | 0.000 | 0.001 | 0.000 | | | | | | | | | | 0.0004 | 0.00000 |
| Clean Haven | Rahway | | | | | | | | | | | | | | |
| Guest Packaging 02 | Rahway | 0.006 | 0.006 | 0.010 | | | | | | | | | | 0.0071 | 0.16000 |
| Guest Packaging 03 | Rahway | 0.004 | 0.012 | 0.006 | | | | | | | | | | 0.0073 | |
| Merck 007 | Rahway | 0.008 | 0.007 | 0.007 | | | | | | | | | | 0.0074 | |
| Merck 012 | Rahway | 0.034 | 0.035 | 0.056 | | | | | | | | | | 0.0418 | |
| Quala Systems | Rahway | 0.181 | 0.078 | 0.032 | | | | | | | | | | 0.0967 | |
| Suez Water Rahway | Rahway | 0.002 | 0.003 | 0.001 | | | | | | | | | | 0.0021 | |
| Crossfield Products (Not currently an SIU) | Roselle Park | 0.001 | | | | | | | | | | | | 0.0012 | 0.05000 |
| Merck Kenilworth (formerly Schering) | Roselle Park | 0.024 | 0.065 | 0.052 | | | | | | | | | | 0.0472 | |
| Valcor Engineering | Springfield | 0.001 | 0.003 | 0.003 | | | | | | | | | | 0.0023 | 0.00000 |
| BASF 1 | Woodbridge | 0.002 | 0.001 | 0.002 | | | | | | | | | | 0.0015 | 0.00000 |
| BASF 2 | Woodbridge | 0.001 | 0.001 | 0.001 | | | | | | | | | | 0.0010 | |
| Gentek Building Products | Woodbridge | 0.000 | 0.000 | | | | | | | | | | | 0.0001 | |
| Total Tons | | 0.479 | 0.978 | 1.586 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.0150 | 1.01000 |