

| Hackensack River Loads Summary<br>Nitrogen Load (lb/d) |          |   |                    |          |
|--|----------|---|--------------------|----------|
| 1988 Hydrodynamic Conditions                           |          |   |                    |          |
| Source   | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Hackensack River Head of Tide                          | 127.8    | 123.0   | 92.3               | 48.6     |
| Storm Water  | 1843.4   | 1721.0  | 1721.0             | 523.9    |
| CSO  | 886.0    | 886.0   | 354.4              | 0.0      |
| North Bergen Central                                   | 741.4    | 741.4   | 296.6              | 0.0      |
| Secaucus   | 631.1    | 631.1   | 252.5              | 0.0      |
| Bergen County  | 12202.0  | 12202.0   | 4883.7             | 0.0      |
| Atmosphere   | 76.2     | 56.9  | 56.9               | 5.8      |
| 1989 Hydrodynamic Conditions                           |          |   |                    |          |
| Source   | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Hackensack River Head of Tide                          | 627.3    | 603.9   | 453.0              | 235.0    |
| Storm Water  | 2305.2   | 2152.1  | 2152.1             | 655.1    |
| CSO  | 1107.9   | 1107.9  | 443.2              | 0.0      |
| North Bergen Central                                   | 741.5    | 741.5   | 296.6              | 0.0      |
| Secaucus   | 631.2    | 631.2   | 252.5              | 0.0      |
| Bergen County  | 12203.5  | 12203.5   | 4884.3             | 0.0      |
| Atmosphere   | 76.2     | 56.9  | 56.9               | 5.8      |

| Hackensack River Loads Summary<br>Carbon Load (lb/d) |          |   |                    |          |
|--|----------|---|--------------------|----------|
| 1988 Hydrodynamic Conditions                         |          |   |                    |          |
| Source   | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Hackensack River Head of Tide                        | 667.7    | 667.7   | 534.0              | 349.1    |
| Storm Water  | 16726.8  | 16726.8   | 16726.8            | 3423.4   |
| CSO  | 5567.0   | 5567.0  | 2226.8             | 0.0      |
| North Bergen Central                                 | 2412.8   | 2412.8  | 965.1              | 0.0      |
| Secaucus   | 567.8    | 567.8   | 227.1              | 0.0      |
| Bergen County  | 17177.5  | 17177.5   | 6871.7             | 0.0      |
| Atmosphere   | 112.9    | 112.9   | 112.9              | 8.6      |
| 1989 Hydrodynamic Conditions                         |          |   |                    |          |
| Source   | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Hackensack River Head of Tide                        | 3446.2   | 3446.2  | 2779.2             | 1686.7   |
| Storm Water  | 20916.9  | 20916.9   | 20916.9            | 4280.9   |
| CSO  | 6961.5   | 6961.5  | 2784.6             | 0.0      |
| North Bergen Central                                 | 2413.1   | 2413.1  | 965.2              | 0.0      |
| Secaucus   | 567.9    | 567.9   | 227.1              | 0.0      |
| Bergen County  | 17179.5  | 17179.5   | 6872.5             | 0.0      |
| Atmosphere   | 112.9    | 112.9   | 112.9              | 8.6      |

| Passaic River Loads Summary<br>Nitrogen Load (lb/d) |          |   |                    |          |
|---|----------|---|--------------------|----------|
| 1988 Hydrodynamic Conditions                        |          |   |                    |          |
| Source  | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Passaic River Head of Tide                          | 12462.6  | 11997.0   | 9004.0             | 1903.2   |
| Saddle River Head of Tide                           | 1509.7   | 1453.3  | 1090.7             | 75.5     |
| Storm Water   | 1149.2   | 1072.9  | 1072.9             | 326.6    |
| CSO   | 986.5    | 986.5   | 394.6              | 0.0      |
| Atmosphere  | 49.5     | 36.9  | 36.9               | 3.8      |
| 1989 Hydrodynamic Conditions                        |          |   |                    |          |
| Source  | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Passaic River Head of Tide                          | 25049.4  | 24119.9   | 18093.3            | 3282.8   |
| Saddle River Head of Tide                           | 2402.2   | 2312.9  | 1735.3             | 106.0    |
| Storm Water   | 1437.1   | 1341.7  | 1341.7             | 408.4    |
| CSO   | 1233.6   | 1233.6  | 493.4              | 0.0      |
| Atmosphere  | 49.5     | 36.9  | 36.9               | 3.8      |

| Passaic River Loads Summary<br>Carbon Load (lb/d) |          |   |                    |          |
|---|----------|---|--------------------|----------|
| 1988 Hydrodynamic Conditions                      |          |   |                    |          |
| Source  | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Passaic River Head of Tide                        | 30246.4  | 30246.4   | 24074.7            | 13092.0  |
| Saddle River Head of Tide                         | 3707.8   | 3707.8  | 2943.7             | 1556.3   |
| Storm Water                                       | 10427.9  | 10427.9   | 10427.9            | 2134.2   |
| CSO   | 6198.4   | 6198.4  | 2479.4             | 0.0      |
| Atmosphere  | 73.3     | 73.3  | 73.3               | 5.6      |
| 1989 Hydrodynamic Conditions                      |          |   |                    |          |
| Source  | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Passaic River Head of Tide                        | 57417.1  | 57417.1   | 46488.0            | 22583.6  |
| Saddle River Head of Tide                         | 5555.5   | 5555.5  | 4470.0             | 2186.0   |
| Storm Water                                       | 13040.1  | 13040.1   | 13040.1            | 2668.8   |
| CSO   | 7751.2   | 7751.2  | 3100.5             | 0.0      |
| Atmosphere  | 73.3     | 73.3  | 73.3               | 5.6      |

| Newark Bay Loads Summary     |          |   |                    |          |  |
|------------------------------|----------|---|--------------------|----------|--|
| Nitrogen Load (lb/d)         |          |   |                    |          |  |
| 1988 Hydrodynamic Conditions |          |   |                    |          |  |
| Source                       | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |  |
| Storm Water                  | 310.8    | 290.2   | 290.2              | 88.3     |  |
| CSO                          | 319.8    | 319.8   | 127.9              | 0.0      |  |
| Atmosphere                   | 103.0    | 76.9  | 76.9               | 7.8      |  |
| 1989 Hydrodynamic Conditions |          |   |                    |          |  |
| Source                       | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |  |
| Storm Water                  | 388.7    | 362.9   | 362.9              | 110.5    |  |
| CSO                          | 399.9    | 399.9   | 160.0              | 0.0      |  |
| Atmosphere                   | 103.0    | 76.9  | 76.9               | 7.8      |  |

| Newark Bay Loads Summary     |          |   |                    |          |  |
|------------------------------|----------|---|--------------------|----------|--|
| Carbon Load (lb/d)           |          |   |                    |          |  |
| 1988 Hydrodynamic Conditions |          |   |                    |          |  |
| Source                       | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |  |
| Storm Water                  | 2820.4   | 2820.4  | 2820.4             | 577.2    |  |
| CSO                          | 2009.4   | 2009.4  | 803.8              | 0.0      |  |
| Atmosphere                   | 152.6    | 152.6   | 152.6              | 11.6     |  |
| 1989 Hydrodynamic Conditions |          |   |                    |          |  |
| Source                       | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |  |
| Storm Water                  | 3526.9   | 3526.9  | 3526.9             | 721.8    |  |
| CSO                          | 2512.7   | 2512.7  | 1005.1             | 0.0      |  |
| Atmosphere                   | 152.6    | 152.6   | 152.6              | 11.6     |  |

| Arthur Kill and Kill Van Kull Loads Summary |          |   |                    |          |  |
|---|----------|---|--------------------|----------|--|
| Nitrogen Load (lb/d)                        |          |   |                    |          |  |
| 1988 Hydrodynamic Conditions                |          |   |                    |          |  |
| Source                                      | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |  |
| Storm Water                                 | 1552.1   | 1449.0  | 1449.0             | 442.5    |  |
| CSO   | 1215.9   | 1215.9  | 486.4              | 0.0      |  |
| Port Richmond                               | 3070.1   | 3070.1  | 1228.6             | 0.0      |  |
| Linden Roselle                              | 7165.8   | 7165.8  | 2864.0             | 0.0      |  |
| Jnt Meeting Essex Union                     | 9863.4   | 9863.4  | 3945.9             | 0.0      |  |
| Rahway                                      | 3781.1   | 3781.1  | 1512.5             | 0.0      |  |
| Atmosphere                                  | 130.2    | 97.2  | 97.2               | 9.9      |  |
| 1989 Hydrodynamic Conditions                |          |   |                    |          |  |
| Source                                      | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |  |
| Storm Water                                 | 1940.9   | 1812.0  | 1812.0             | 553.1    |  |
| CSO   | 1512.7   | 1512.7  | 605.1              | 0.0      |  |
| Port Richmond                               | 3070.5   | 3070.5  | 1228.8             | 0.0      |  |
| Linden Roselle                              | 7167.0   | 7167.0  | 2864.5             | 0.0      |  |
| Jnt Meeting Essex Union                     | 9864.0   | 9864.0  | 3946.1             | 0.0      |  |
| Rahway                                      | 3781.5   | 3781.5  | 1512.6             | 0.0      |  |
| Atmosphere                                  | 130.2    | 97.2  | 97.2               | 9.9      |  |

| Arthur Kill and Kill Van Kull Loads Summary |          |   |                    |          |
|---|----------|---|--------------------|----------|
| Carbon Load (lb/d)                          |          |   |                    |          |
| 1988 Hydrodynamic Conditions                |          |   |                    |          |
| Source                                      | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Storm Water                                 | 14083.1  | 14083.1   | 14083.1            | 2891.9   |
| CSO   | 7640.0   | 7640.0  | 3056.0             | 0.0      |
| Port Richmond                               | 2735.3   | 2735.3  | 1093.6             | 0.0      |
| Linden Roselle                              | 1724.3   | 1724.3  | 689.6              | 0.0      |
| Jnt Meeting Essex Union                     | 9735.3   | 9735.3  | 3893.0             | 0.0      |
| Rahway                                      | 5730.4   | 5730.4  | 2292.2             | 0.0      |
| Atmosphere                                  | 192.9    | 192.9   | 192.9              | 14.7     |
| 1989 Hydrodynamic Conditions                |          |   |                    |          |
| Source                                      | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Storm Water                                 | 17610.9  | 17610.9   | 17610.9            | 3614.1   |
| CSO   | 9505.2   | 9505.2  | 3802.1             | 0.0      |
| Port Richmond                               | 2735.7   | 2735.7  | 1093.8             | 0.0      |
| Linden Roselle                              | 1724.5   | 1724.5  | 689.7              | 0.0      |
| Jnt Meeting Essex Union                     | 9736.7   | 9736.7  | 3893.5             | 0.0      |
| Rahway                                      | 5730.9   | 5730.9  | 2292.4             | 0.0      |
| Atmosphere                                  | 192.9    | 192.9   | 192.9              | 14.7     |



| Raritan River And Raritan Bay Loads Summary |          |   |                    |          |
|---|----------|---|--------------------|----------|
| Nitrogen Load (lb/d)                        |          |   |                    |          |
| 1988 Hydrodynamic Conditions                |          |   |                    |          |
| Source                                      | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Raritan River Head of Tide                  | 13083.3  | 11985.6   | 8977.5             | 839.0    |
| South River Head of Tide                    | 1736.1   | 1590.4  | 1191.5             | 373.2    |
| Navesink/Shrewbury River Head of Tide       | 180.3    | 178.7   | 134.0              | 63.2     |
| Storm Water                                 | 1777.7   | 1659.6  | 1659.6             | 505.2    |
| CSO   | 276.1    | 276.1   | 110.4              | 0.0      |
| Oakwood Beach                               | 4477.8   | 4477.8  | 1790.8             | 0.0      |
| Middlesex County                            | 30841.8  | 30841.8   | 12339.1            | 0.0      |
| Atmosphere                                  | 1835.5   | 1370.5  | 1370.5             | 139.8    |
| 1989 Hydrodynamic Conditions                |          |   |                    |          |
| Source                                      | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Raritan River Head of Tide                  | 19370.6  | 17754.4   | 13290.2            | 1268.2   |
| South River Head of Tide                    | 2437.6   | 2234.4  | 1672.1             | 519.7    |
| Navesink/Shrewbury River Head of Tide       | 669.8    | 663.8   | 497.8              | 252.0    |
| Storm Water                                 | 2223.0   | 2075.4  | 2075.4             | 631.7    |
| CSO   | 345.2    | 345.2   | 138.1              | 0.0      |
| Oakwood Beach                               | 4478.2   | 4478.2  | 1791.0             | 0.0      |
| Middlesex County                            | 30845.2  | 30845.2   | 12340.5            | 0.0      |
| Atmosphere                                  | 1835.5   | 1370.5  | 1370.5             | 139.8    |

| Raritan River And Raritan Bay Loads Summary<br>Carbon Load (lb/d) |          |   |                    |          |
|---|----------|---|--------------------|----------|
| 1988 Hydrodynamic Conditions                                      |          |   |                    |          |
| Source  | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Raritan River Head of Tide  | 31526.1  | 31526.1   | 24540.2            | 18210.5  |
| South River Head of Tide  | 3988.8   | 3988.8  | 3094.1             | 2426.6   |
| Navesink/Shrewbury River Head of Tide                             | 474.7    | 474.7   | 363.6              | 365.4    |
| Storm Water   | 16130.2  | 16130.2   | 16130.2            | 3301.3   |
| CSO   | 1734.6   | 1734.6  | 693.8              | 0.0      |
| Oakwood Beach   | 2704.9   | 2704.9  | 1082.1             | 0.0      |
| Middlesex County  | 33814.3  | 33814.3   | 13526.6            | 0.0      |
| Atmosphere  | 2719.3   | 2719.3  | 2719.3             | 207.1    |
| 1989 Hydrodynamic Conditions                                      |          |   |                    |          |
| Source  | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Raritan River Head of Tide  | 47653.7  | 47653.7   | 36994.0            | 27524.6  |
| South River Head of Tide  | 6120.7   | 6120.7  | 4747.5             | 3380.0   |
| Navesink/Shrewbury River Head of Tide                             | 2046.8   | 2046.8  | 1597.8             | 1457.6   |
| Storm Water   | 20170.8  | 20170.8   | 20170.8            | 4128.2   |
| CSO   | 2169.1   | 2169.1  | 867.6              | 0.0      |
| Oakwood Beach   | 2705.2   | 2705.2  | 1082.2             | 0.0      |
| Middlesex County  | 33818.5  | 33818.5   | 13528.3            | 0.0      |
| Atmosphere  | 2719.3   | 2719.3  | 2719.3             | 207.1    |

| Hudson River Below Tappan Zee and Upper Bay Loads Summary<br>Nitrogen Load (lb/d) |          |   |                    |          |
|---|----------|---|--------------------|----------|
| 1988 Hydrodynamic Conditions  |          |   |                    |          |
| Source  | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Sawmill River Head of Tide  | 260.7    | 252.7   | 189.5              | 84.0     |
| Storm Water   | 536.4    | 500.8   | 500.8              | 189.6    |
| CSO   | 2493.7   | 2493.7  | 997.5              | 0.0      |
| North River   | 24192.6  | 24192.6   | 9681.1             | 0.0      |
| Owls Head   | 18497.6  | 18497.6   | 7397.0             | 0.0      |
| Yonkers   | 11332.8  | 11332.8   | 4530.9             | 0.0      |
| North Bergen Woodcliff  | 350.2    | 350.2   | 140.1              | 0.0      |
| Hoboken   | 1853.5   | 1853.5  | 741.8              | 0.0      |
| West New York   | 1051.2   | 1051.2  | 420.5              | 0.0      |
| Passaic Valley  | 64087.9  | 64087.9   | 25638.8            | 0.0      |
| Edgewater   | 388.9    | 388.9   | 155.6              | 0.0      |
| Atmosphere  | 756.1    | 564.6   | 564.6              | 57.6     |
| 1989 Hydrodynamic Conditions  |          |   |                    |          |
| Source  | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Sawmill River Head of Tide  | 357.5    | 346.5   | 259.9              | 118.6    |
| Storm Water   | 681.3    | 636.0   | 636.0              | 252.0    |
| CSO   | 3389.9   | 3389.9  | 1356.0             | 0.0      |
| North River   | 24195.5  | 24195.5   | 9682.3             | 0.0      |
| Owls Head   | 18500.0  | 18500.0   | 7397.9             | 0.0      |
| Yonkers   | 11334.1  | 11334.1   | 4531.4             | 0.0      |
| North Bergen Woodcliff  | 350.2    | 350.2   | 140.1              | 0.0      |
| Hoboken   | 1853.7   | 1853.7  | 741.9              | 0.0      |
| West New York   | 1051.4   | 1051.4  | 420.5              | 0.0      |
| Passaic Valley  | 64094.6  | 64094.6   | 25641.4            | 0.0      |
| Edgewater   | 389.0    | 389.0   | 155.7              | 0.0      |
| Atmosphere  | 756.1    | 564.6   | 564.6              | 57.6     |

| Hudson River Below Tappan Zee and Upper Bay Loads Summary<br>Carbon Load (lb/d) |          |   |                    |          |
|---|----------|---|--------------------|----------|
| 1988 Hydrodynamic Conditions  |          |   |                    |          |
| Source  | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Sawmill River Head of Tide  | 738.9    | 738.9   | 569.7              | 548.1    |
| Storm Water   | 4867.3   | 4867.3  | 4867.3             | 1239.1   |
| CSO   | 15669.5  | 15669.5   | 6267.8             | 0.0      |
| North River   | 22693.6  | 22693.6   | 9076.8             | 0.0      |
| Owls Head   | 22169.5  | 22169.5   | 8871.2             | 0.0      |
| Yonkers   | 11120.9  | 11120.9   | 4449.3             | 0.0      |
| North Bergen Woodcliff  | 713.1    | 713.1   | 285.2              | 0.0      |
| Hoboken   | 1680.6   | 1680.6  | 672.2              | 0.0      |
| West New York   | 2519.4   | 2519.4  | 1007.8             | 0.0      |
| Passaic Valley  | 90735.3  | 90735.3   | 36297.1            | 0.0      |
| Edgewater   | 565.9    | 565.9   | 226.5              | 0.0      |
| Atmosphere  | 1120.2   | 1120.2  | 1120.2             | 85.3     |
| 1989 Hydrodynamic Conditions  |          |   |                    |          |
| Source  | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Sawmill River Head of Tide  | 1057.8   | 1057.8  | 822.6              | 774.1    |
| Storm Water   | 6181.7   | 6181.7  | 6181.7             | 1646.6   |
| CSO   | 21300.9  | 21300.9   | 8520.3             | 0.0      |
| North River   | 22696.2  | 22696.2   | 9077.9             | 0.0      |
| Owls Head   | 22171.9  | 22171.9   | 8872.1             | 0.0      |
| Yonkers   | 11123.1  | 11123.1   | 4450.2             | 0.0      |
| North Bergen Woodcliff  | 713.2    | 713.2   | 285.2              | 0.0      |
| Hoboken   | 1680.8   | 1680.8  | 672.3              | 0.0      |
| West New York   | 2519.7   | 2519.7  | 1007.9             | 0.0      |
| Passaic Valley  | 90746.0  | 90746.0   | 36301.3            | 0.0      |
| Edgewater   | 566.0    | 566.0   | 226.5              | 0.0      |
| Atmosphere  | 1120.2   | 1120.2  | 1120.2             | 85.3     |

| Month  | Hackensack River Head of Tide<br>Nitrogen Load (lb/d) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 12.9  | 12.4  | 9.3                | 4.7      |
| Feb-88 | 409.2   | 394.0   | 295.6              | 141.6    |
| Mar-88 | 377.4   | 363.4   | 272.3              | 115.6    |
| Apr-88 | 32.5  | 31.3  | 23.4               | 15.1     |
| May-88 | 441.5   | 425.0   | 318.8              | 182.9    |
| Jun-88 | 57.6  | 55.4  | 41.6               | 17.4     |
| Jul-88 | 12.4  | 11.9  | 9.0                | 4.2      |
| Aug-88 | 13.4  | 12.9  | 9.7                | 4.6      |
| Sep-88 | 15.8  | 15.2  | 11.4               | 5.4      |
| Oct-88 | 4.7   | 4.6   | 3.4                | 1.6      |
| Nov-88 | 82.7  | 79.7  | 59.8               | 46.1     |
| Dec-88 | 73.0  | 70.3  | 52.8               | 44.6     |
| Jan-89 | 1.8   | 1.8   | 1.3                | 0.7      |
| Feb-89 | 5.9   | 5.7   | 4.3                | 2.0      |
| Mar-89 | 302.7   | 291.5   | 218.4              | 92.7     |
| Apr-89 | 325.9   | 314.0   | 235.3              | 151.3    |
| May-89 | 3162.4  | 3043.8  | 2283.7             | 1310.1   |
| Jun-89 | 1425.0  | 1371.6  | 1029.7             | 431.3    |
| Jul-89 | 171.4   | 165.1   | 123.7              | 58.4     |
| Aug-89 | 289.4   | 278.6   | 208.9              | 98.6     |
| Sep-89 | 473.8   | 456.2   | 342.0              | 161.4    |
| Oct-89 | 1153.8  | 1110.9  | 832.8              | 393.0    |
| Nov-89 | 199.1   | 191.9   | 143.9              | 110.9    |
| Dec-89 | 16.0  | 15.4  | 11.5               | 9.8      |

| Month  | Hackensack River Head of Tide<br>Carbon Load (lb/d) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 63.7  | 63.7  | 48.4               | 33.9     |
| Feb-88 | 1812.9  | 1812.9  | 1381.8             | 1016.0   |
| Mar-88 | 1456.2  | 1456.2  | 1192.8             | 829.9    |
| Apr-88 | 216.9   | 216.9   | 172.4              | 108.0    |
| May-88 | 2696.9  | 2696.9  | 2181.3             | 1313.0   |
| Jun-88 | 283.1   | 283.1   | 229.8              | 125.2    |
| Jul-88 | 58.6  | 58.6  | 46.7               | 30.3     |
| Aug-88 | 63.3  | 63.3  | 50.4               | 32.8     |
| Sep-88 | 74.5  | 74.5  | 59.4               | 38.5     |
| Oct-88 | 22.4  | 22.4  | 17.8               | 11.6     |
| Nov-88 | 689.6   | 689.6   | 567.1              | 330.9    |
| Dec-88 | 574.1   | 574.1   | 460.1              | 319.7    |
| Jan-89 | 9.1   | 9.1   | 6.9                | 4.9      |
| Feb-89 | 26.1  | 26.1  | 19.9               | 14.6     |
| Mar-89 | 1168.0  | 1168.0  | 956.7              | 665.7    |
| Apr-89 | 2178.5  | 2178.5  | 1730.9             | 1084.3   |
| May-89 | 19315.6   | 19315.6   | 15622.8            | 9404.2   |
| Jun-89 | 7003.8  | 7003.8  | 5685.5             | 3096.3   |
| Jul-89 | 809.8   | 809.8   | 645.2              | 419.0    |
| Aug-89 | 1367.0  | 1367.0  | 1089.1             | 707.3    |
| Sep-89 | 2239.1  | 2239.1  | 1784.0             | 1158.0   |
| Oct-89 | 5452.2  | 5452.2  | 4344.0             | 2819.7   |
| Nov-89 | 1660.1  | 1660.1  | 1365.3             | 796.6    |
| Dec-89 | 125.5   | 125.5   | 100.6              | 69.9     |

| Month  | Passaic River Head of Tide<br>Nitrogen Load (lb/d) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 7638.1   | 7348.0  | 5516.7             | 1665.7   |
| Feb-88 | 22647.9  | 21792.1   | 16346.3            | 3814.4   |
| Mar-88 | 15345.3  | 14753.6   | 11108.7            | 3187.3   |
| Apr-88 | 7985.4   | 7696.5  | 5760.2             | 1161.1   |
| May-88 | 35448.3  | 34148.2   | 25595.4            | 4253.8   |
| Jun-88 | 9614.0   | 9253.2  | 6944.0             | 983.9    |
| Jul-88 | 14211.6  | 13681.2   | 10267.7            | 1659.2   |
| Aug-88 | 7119.7   | 6854.0  | 5143.9             | 831.2    |
| Sep-88 | 6413.5   | 6174.2  | 4633.7             | 748.8    |
| Oct-88 | 3459.9   | 3330.8  | 2499.8             | 403.9    |
| Nov-88 | 13752.5  | 13225.9   | 9955.1             | 2988.3   |
| Dec-88 | 5914.8   | 5706.2  | 4276.2             | 1140.2   |
| Jan-89 | 6149.2   | 5915.7  | 4441.4             | 1341.0   |
| Feb-89 | 7755.4   | 7462.4  | 5597.5             | 1306.2   |
| Mar-89 | 8066.6   | 7755.5  | 5839.5             | 1675.5   |
| Apr-89 | 28252.3  | 27230.2   | 20379.7            | 4107.9   |
| May-89 | 98431.2  | 94821.2   | 71072.2            | 11811.7  |
| Jun-89 | 41190.4  | 39644.7   | 29751.1            | 4215.7   |
| Jul-89 | 13765.9  | 13252.2   | 9945.7             | 1607.2   |
| Aug-89 | 9065.9   | 8727.5  | 6550.0             | 1058.4   |
| Sep-89 | 26168.2  | 25191.6   | 18906.3            | 3055.1   |
| Oct-89 | 40494.7  | 38983.4   | 29257.0            | 4727.7   |
| Nov-89 | 15908.1  | 15299.0   | 11515.5            | 3456.7   |
| Dec-89 | 5344.4   | 5156.0  | 3863.9             | 1030.2   |

| Month  | Passaic River Head of Tide<br>Carbon Load (lb/d) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 20755.5  | 20755.5   | 15796.3            | 11470.7  |
| Feb-88 | 39579.1  | 39579.1   | 30233.4            | 26216.0  |
| Mar-88 | 40242.6  | 40242.6   | 31621.5            | 21946.4  |
| Apr-88 | 17664.8  | 17664.8   | 14667.0            | 7992.9   |
| May-88 | 80185.8  | 80185.8   | 66271.9            | 29276.7  |
| Jun-88 | 21150.8  | 21150.8   | 17630.0            | 6765.8   |
| Jul-88 | 44950.1  | 44950.1   | 34889.0            | 11397.1  |
| Aug-88 | 14653.6  | 14653.6   | 11573.9            | 5711.5   |
| Sep-88 | 12407.6  | 12407.6   | 9851.8             | 5158.4   |
| Oct-88 | 6691.9   | 6691.9  | 5313.1             | 2774.4   |
| Nov-88 | 48307.8  | 48307.8   | 38217.9            | 20565.5  |
| Dec-88 | 16367.0  | 16367.0   | 12831.1            | 7829.1   |
| Jan-89 | 16709.7  | 16709.7   | 12717.1            | 9234.7   |
| Feb-89 | 13553.2  | 13553.2   | 10352.9            | 8977.2   |
| Mar-89 | 21154.3  | 21154.3   | 16622.5            | 11536.6  |
| Apr-89 | 62498.3  | 62498.3   | 51892.0            | 28279.0  |
| May-89 | 222656.2   | 222656.2  | 184020.7           | 81294.2  |
| Jun-89 | 90618.9  | 90618.9   | 75534.3            | 28987.8  |
| Jul-89 | 43540.5  | 43540.5   | 33794.9            | 11039.7  |
| Aug-89 | 18659.3  | 18659.3   | 14737.8            | 7272.7   |
| Sep-89 | 50625.1  | 50625.1   | 40197.0            | 21047.1  |
| Oct-89 | 78321.5  | 78321.5   | 62184.2            | 32471.4  |
| Nov-89 | 55879.5  | 55879.5   | 44208.2            | 23788.9  |
| Dec-89 | 14788.8  | 14788.8   | 11593.8            | 7074.1   |



| Month  | Saddle River Head of Tide<br>Nitrogen Load (lb/d) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 943.5   | 907.6   | 681.4              | 68.6     |
| Feb-88 | 2165.1  | 2083.3  | 1562.7             | 121.6    |
| Mar-88 | 1347.6  | 1295.6  | 975.5              | 93.3     |
| Apr-88 | 1327.1  | 1279.1  | 957.3              | 64.3     |
| May-88 | 2539.6  | 2446.4  | 1833.7             | 101.6    |
| Jun-88 | 1351.5  | 1300.8  | 976.2              | 46.1     |
| Jul-88 | 2393.8  | 2304.4  | 1729.5             | 93.2     |
| Aug-88 | 1153.1  | 1110.1  | 833.1              | 44.9     |
| Sep-88 | 1230.1  | 1184.2  | 888.7              | 47.9     |
| Oct-88 | 1009.5  | 971.8   | 729.3              | 39.3     |
| Nov-88 | 1789.1  | 1720.6  | 1295.0             | 129.6    |
| Dec-88 | 866.3   | 835.7   | 626.3              | 55.7     |
| Jan-89 | 698.1   | 671.6   | 504.2              | 50.8     |
| Feb-89 | 1129.0  | 1086.3  | 814.9              | 63.4     |
| Mar-89 | 1280.3  | 1231.0  | 926.9              | 88.7     |
| Apr-89 | 2183.9  | 2104.9  | 1575.4             | 105.9    |
| May-89 | 6788.2  | 6539.2  | 4901.4             | 271.5    |
| Jun-89 | 4234.0  | 4075.1  | 3058.1             | 144.4    |
| Jul-89 | 2395.7  | 2306.3  | 1730.9             | 93.2     |
| Aug-89 | 1799.2  | 1732.0  | 1299.9             | 70.0     |
| Sep-89 | 2915.2  | 2806.4  | 2106.2             | 113.5    |
| Oct-89 | 3393.2  | 3266.6  | 2451.6             | 132.1    |
| Nov-89 | 1196.2  | 1150.4  | 865.9              | 86.6     |
| Dec-89 | 813.7   | 785.0   | 588.3              | 52.3     |

| Month  | Saddle River Head of Tide<br>Carbon Load (lb/d) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 2563.7  | 2563.7  | 1951.1             | 1414.0   |
| Feb-88 | 3783.7  | 3783.7  | 2890.3             | 2506.8   |
| Mar-88 | 3534.0  | 3534.0  | 2776.9             | 1923.5   |
| Apr-88 | 2935.8  | 2935.8  | 2437.6             | 1326.5   |
| May-88 | 5744.7  | 5744.7  | 4747.8             | 2095.1   |
| Jun-88 | 2973.4  | 2973.4  | 2478.4             | 951.7    |
| Jul-88 | 7571.3  | 7571.3  | 5876.6             | 1921.6   |
| Aug-88 | 2373.3  | 2373.3  | 1874.5             | 924.8    |
| Sep-88 | 2379.7  | 2379.7  | 1889.5             | 986.0    |
| Oct-88 | 1952.4  | 1952.4  | 1550.1             | 809.4    |
| Nov-88 | 6284.3  | 6284.3  | 4971.7             | 2669.4   |
| Dec-88 | 2397.1  | 2397.1  | 1879.2             | 1147.3   |
| Jan-89 | 1897.1  | 1897.1  | 1443.8             | 1046.4   |
| Feb-89 | 1973.0  | 1973.0  | 1507.1             | 1307.2   |
| Mar-89 | 3357.7  | 3357.7  | 2638.4             | 1827.5   |
| Apr-89 | 4831.2  | 4831.2  | 4011.3             | 2182.8   |
| May-89 | 15355.2   | 15355.2   | 12690.8            | 5600.1   |
| Jun-89 | 9314.8  | 9314.8  | 7764.3             | 2981.4   |
| Jul-89 | 7577.4  | 7577.4  | 5881.3             | 1923.2   |
| Aug-89 | 3703.0  | 3703.0  | 2924.8             | 1443.0   |
| Sep-89 | 5639.8  | 5639.8  | 4478.1             | 2336.7   |
| Oct-89 | 6562.9  | 6562.9  | 5210.7             | 2720.8   |
| Nov-89 | 4201.8  | 4201.8  | 3324.2             | 1784.8   |
| Dec-89 | 2251.5  | 2251.5  | 1765.1             | 1077.6   |

| Month  | Raritan River Head of Tide<br>Nitrogen Load (lb/d) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 12736.8  | 11680.3   | 8759.2             | 777.4    |
| Feb-88 | 30622.7  | 27985.2   | 20990.3            | 2024.1   |
| Mar-88 | 15835.7  | 14501.7   | 10894.2            | 1055.5   |
| Apr-88 | 8380.4   | 7684.8  | 5749.2             | 509.6    |
| May-88 | 16680.9  | 15281.4   | 11456.3            | 1293.6   |
| Jun-88 | 4753.4   | 4362.6  | 3258.3             | 295.9    |
| Jul-88 | 21395.1  | 19613.3   | 14669.0            | 1191.0   |
| Aug-88 | 4273.5   | 3917.3  | 2929.5             | 277.6    |
| Sep-88 | 4769.4   | 4372.7  | 3269.4             | 309.8    |
| Oct-88 | 3708.0   | 3399.6  | 2541.8             | 240.9    |
| Nov-88 | 23756.7  | 21780.7   | 16285.3            | 1543.3   |
| Dec-88 | 10086.9  | 9247.8  | 6927.9             | 549.7    |
| Jan-89 | 10206.9  | 9360.2  | 7019.3             | 623.0    |
| Feb-89 | 14800.9  | 13526.2   | 10145.3            | 978.3    |
| Mar-89 | 17999.2  | 16483.0   | 12382.6            | 1199.7   |
| Apr-89 | 21407.8  | 19630.8   | 14686.3            | 1301.7   |
| May-89 | 40873.1  | 37444.0   | 28071.4            | 3169.8   |
| Jun-89 | 29859.9  | 27404.9   | 20468.1            | 1858.9   |
| Jul-89 | 18248.7  | 16728.9   | 12511.7            | 1015.9   |
| Aug-89 | 7020.9   | 6435.7  | 4812.8             | 456.1    |
| Sep-89 | 27243.0  | 24977.0   | 18675.1            | 1769.8   |
| Oct-89 | 26091.3  | 23921.1   | 17885.6            | 1695.0   |
| Nov-89 | 12519.9  | 11478.5   | 8582.4             | 813.3    |
| Dec-89 | 6175.9   | 5662.1  | 4241.7             | 336.6    |

| Month  | Raritan River Head of Tide<br>Carbon Load (lb/d) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 21469.4  | 21469.4   | 16304.0            | 16882.7  |
| Feb-88 | 57171.4  | 57171.4   | 43377.8            | 43912.5  |
| Mar-88 | 40021.3  | 40021.3   | 30264.2            | 22911.2  |
| Apr-88 | 17451.0  | 17451.0   | 13927.3            | 11053.5  |
| May-88 | 46733.4  | 46733.4   | 37177.3            | 28048.2  |
| Jun-88 | 9834.0   | 9834.0  | 7452.4             | 6428.4   |
| Jul-88 | 70529.8  | 70529.8   | 58776.0            | 25851.9  |
| Aug-88 | 10995.6  | 10995.6   | 8494.3             | 6025.0   |
| Sep-88 | 12274.4  | 12274.4   | 9279.7             | 6727.7   |
| Oct-88 | 9542.9   | 9542.9  | 7214.7             | 5230.6   |
| Nov-88 | 61140.4  | 61140.4   | 46223.4            | 33511.6  |
| Dec-88 | 21149.9  | 21149.9   | 15990.8            | 11942.2  |
| Jan-89 | 17204.9  | 17204.9   | 13065.5            | 13529.3  |
| Feb-89 | 27632.8  | 27632.8   | 20965.9            | 21224.3  |
| Mar-89 | 45489.0  | 45489.0   | 34399.0            | 26041.4  |
| Apr-89 | 44578.7  | 44578.7   | 35577.3            | 28236.2  |
| May-89 | 114510.8   | 114510.8  | 91095.5            | 68726.4  |
| Jun-89 | 61774.9  | 61774.9   | 46814.3            | 40382.0  |
| Jul-89 | 60157.4  | 60157.4   | 50132.2            | 22050.1  |
| Aug-89 | 18064.6  | 18064.6   | 13955.2            | 9898.5   |
| Sep-89 | 70112.7  | 70112.7   | 53006.6            | 38429.4  |
| Oct-89 | 67148.5  | 67148.5   | 50765.7            | 36804.7  |
| Nov-89 | 32221.3  | 32221.3   | 24359.9            | 17660.8  |
| Dec-89 | 12949.4  | 12949.4   | 9790.6             | 7311.8   |

| Month  | South River Head of Tide<br>Nitrogen Load (lb/d) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 2543.3   | 2332.3  | 1749.1             | 517.8    |
| Feb-88 | 4556.8   | 4164.4  | 3123.5             | 1005.4   |
| Mar-88 | 2406.9   | 2204.1  | 1655.8             | 535.3    |
| Apr-88 | 2023.3   | 1855.4  | 1388.0             | 410.5    |
| May-88 | 2104.6   | 1928.1  | 1445.5             | 545.4    |
| Jun-88 | 952.7  | 874.4   | 653.0              | 198.3    |
| Jul-88 | 1783.2   | 1634.7  | 1222.6             | 331.2    |
| Aug-88 | 824.1  | 755.4   | 564.9              | 179.0    |
| Sep-88 | 774.4  | 710.0   | 530.9              | 167.9    |
| Oct-88 | 433.5  | 397.5   | 297.2              | 94.0     |
| Nov-88 | 1477.2   | 1354.4  | 1012.7             | 320.3    |
| Dec-88 | 953.1  | 873.8   | 654.6              | 173.4    |
| Jan-89 | 954.1  | 875.0   | 656.1              | 194.3    |
| Feb-89 | 1274.5   | 1164.7  | 873.6              | 281.2    |
| Mar-89 | 1516.0   | 1388.3  | 1042.9             | 337.2    |
| Apr-89 | 1866.6   | 1711.6  | 1280.5             | 378.7    |
| May-89 | 2727.5   | 2498.7  | 1873.2             | 706.9    |
| Jun-89 | 2371.3   | 2176.3  | 1625.4             | 493.5    |
| Jul-89 | 3379.2   | 3097.8  | 2316.8             | 627.6    |
| Aug-89 | 2182.8   | 2000.9  | 1496.3             | 474.1    |
| Sep-89 | 3488.8   | 3198.6  | 2391.6             | 756.3    |
| Oct-89 | 4287.2   | 3930.6  | 2938.9             | 929.4    |
| Nov-89 | 3182.9   | 2918.2  | 2181.9             | 690.0    |
| Dec-89 | 2020.4   | 1852.3  | 1387.6             | 367.6    |

| Month  | South River Head of Tide<br>Carbon Load (lb/d) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline                                       | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 4287.1   | 4287.1  | 3255.6             | 3370.0   |
| Feb-88 | 8507.4   | 8507.4  | 6454.9             | 6530.1   |
| Mar-88 | 6082.9   | 6082.9  | 4599.9             | 3488.3   |
| Apr-88 | 4213.3   | 4213.3  | 3362.5             | 2670.8   |
| May-88 | 5896.4   | 5896.4  | 4690.7             | 3538.4   |
| Jun-88 | 1971.0   | 1971.0  | 1493.6             | 1286.4   |
| Jul-88 | 5878.5   | 5878.5  | 4898.8             | 2156.9   |
| Aug-88 | 2120.4   | 2120.4  | 1638.1             | 1161.1   |
| Sep-88 | 1993.0   | 1993.0  | 1506.8             | 1093.0   |
| Oct-88 | 1115.7   | 1115.7  | 843.5              | 611.9    |
| Nov-88 | 3801.8   | 3801.8  | 2874.3             | 2085.0   |
| Dec-88 | 1998.4   | 1998.4  | 1511.0             | 1128.0   |
| Jan-89 | 1608.2   | 1608.2  | 1221.3             | 1264.2   |
| Feb-89 | 2379.4   | 2379.4  | 1805.3             | 1826.4   |
| Mar-89 | 3831.3   | 3831.3  | 2897.3             | 2197.1   |
| Apr-89 | 3886.9   | 3886.9  | 3102.0             | 2463.8   |
| May-89 | 7641.5   | 7641.5  | 6078.9             | 4585.6   |
| Jun-89 | 4905.7   | 4905.7  | 3717.6             | 3201.8   |
| Jul-89 | 11139.6  | 11139.6   | 9283.2             | 4087.3   |
| Aug-89 | 5616.4   | 5616.4  | 4338.7             | 3075.3   |
| Sep-89 | 8978.8   | 8978.8  | 6788.2             | 4924.1   |
| Oct-89 | 11033.4  | 11033.4   | 8341.5             | 6050.8   |
| Nov-89 | 8191.5   | 8191.5  | 6193.0             | 4492.3   |
| Dec-89 | 4236.2   | 4236.2  | 3202.9             | 2391.1   |

| Month  | Navesink/Shrewbury River Head of Tide<br>Nitrogen Load (lb/d) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 356.0   | 353.0   | 264.5              | 118.3    |
| Feb-88 | 847.4   | 839.9   | 629.4              | 279.6    |
| Mar-88 | 388.7   | 385.2   | 289.0              | 138.2    |
| Apr-88 | 202.8   | 201.0   | 150.6              | 75.7     |
| May-88 | 342.1   | 339.1   | 254.4              | 136.2    |
| Jun-88 | 26.6  | 26.4  | 19.8               | 10.2     |
| Jul-88 | 0.0   | 0.0   | 0.0                | 0.0      |
| Aug-88 | 0.0   | 0.0   | 0.0                | 0.0      |
| Sep-88 | 0.0   | 0.0   | 0.0                | 0.0      |
| Oct-88 | 0.0   | 0.0   | 0.0                | 0.0      |
| Nov-88 | 0.0   | 0.0   | 0.0                | 0.0      |
| Dec-88 | 0.0   | 0.0   | 0.0                | 0.0      |
| Jan-89 | 0.0   | 0.0   | 0.0                | 0.0      |
| Feb-89 | 12.1  | 12.0  | 9.0                | 4.0      |
| Mar-89 | 398.8   | 395.2   | 296.4              | 141.8    |
| Apr-89 | 442.2   | 438.2   | 328.4              | 165.0    |
| May-89 | 1263.3  | 1252.2  | 939.3              | 503.0    |
| Jun-89 | 801.8   | 794.4   | 596.0              | 308.8    |
| Jul-89 | 1049.8  | 1040.2  | 780.5              | 394.6    |
| Aug-89 | 674.7   | 668.8   | 501.5              | 263.5    |
| Sep-89 | 528.5   | 523.7   | 392.5              | 199.6    |
| Oct-89 | 1562.3  | 1548.2  | 1162.1             | 550.2    |
| Nov-89 | 860.1   | 852.7   | 638.7              | 337.4    |
| Dec-89 | 443.6   | 439.7   | 329.5              | 155.8    |

| Month  | Navesink/Shrewbury River Head of Tide<br>Carbon Load (lb/d) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 892.5   | 892.5   | 680.5              | 683.8    |
| Feb-88 | 2112.7  | 2112.7  | 1611.0             | 1617.7   |
| Mar-88 | 1012.9  | 1012.9  | 771.5              | 800.0    |
| Apr-88 | 563.6   | 563.6   | 431.1              | 437.7    |
| May-88 | 1017.7  | 1017.7  | 789.7              | 786.8    |
| Jun-88 | 97.4  | 97.4  | 79.6               | 59.3     |
| Jul-88 | 0.0   | 0.0   | 0.0                | 0.0      |
| Aug-88 | 0.0   | 0.0   | 0.0                | 0.0      |
| Sep-88 | 0.0   | 0.0   | 0.0                | 0.0      |
| Oct-88 | 0.0   | 0.0   | 0.0                | 0.0      |
| Nov-88 | 0.0   | 0.0   | 0.0                | 0.0      |
| Dec-88 | 0.0   | 0.0   | 0.0                | 0.0      |
| Jan-89 | 0.0   | 0.0   | 0.0                | 0.0      |
| Feb-89 | 30.3  | 30.3  | 23.1               | 23.2     |
| Mar-89 | 1039.1  | 1039.1  | 791.5              | 820.7    |
| Apr-89 | 1228.8  | 1228.8  | 940.0              | 954.3    |
| May-89 | 3758.4  | 3758.4  | 2916.2             | 2905.6   |
| Jun-89 | 2934.5  | 2934.5  | 2398.1             | 1788.5   |
| Jul-89 | 3183.1  | 3183.1  | 2475.5             | 2277.7   |
| Aug-89 | 2309.9  | 2309.9  | 1859.2             | 1527.3   |
| Sep-89 | 1549.9  | 1549.9  | 1192.7             | 1155.9   |
| Oct-89 | 4628.2  | 4628.2  | 3597.2             | 3187.3   |
| Nov-89 | 2723.1  | 2723.1  | 2084.7             | 1950.3   |
| Dec-89 | 1175.8  | 1175.8  | 896.0              | 900.3    |



| Month  | Sawmill River Head of Tide<br>Nitrogen Load (lb/d) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 271.6  | 263.4   | 197.5              | 80.0     |
| Feb-88 | 625.9  | 606.7   | 454.9              | 183.1    |
| Mar-88 | 356.3  | 345.2   | 259.1              | 112.3    |
| Apr-88 | 197.7  | 191.7   | 143.7              | 65.4     |
| May-88 | 327.9  | 317.8   | 238.3              | 115.6    |
| Jun-88 | 138.2  | 134.0   | 100.5              | 47.2     |
| Jul-88 | 218.5  | 211.8   | 158.7              | 72.7     |
| Aug-88 | 87.8   | 85.1  | 63.8               | 30.5     |
| Sep-88 | 106.6  | 103.2   | 77.5               | 35.7     |
| Oct-88 | 105.3  | 102.1   | 76.6               | 32.9     |
| Nov-88 | 472.6  | 458.2   | 343.6              | 164.3    |
| Dec-88 | 219.8  | 213.2   | 159.8              | 68.4     |
| Jan-89 | 222.0  | 215.3   | 161.4              | 65.4     |
| Feb-89 | 277.3  | 268.9   | 201.6              | 81.1     |
| Mar-89 | 373.8  | 362.2   | 271.9              | 117.8    |
| Apr-89 | 501.9  | 486.8   | 365.0              | 166.1    |
| May-89 | 1076.6   | 1043.6  | 782.6              | 379.5    |
| Jun-89 | 431.2  | 418.0   | 313.6              | 147.2    |
| Jul-89 | 225.2  | 218.3   | 163.6              | 74.9     |
| Aug-89 | 199.4  | 193.3   | 145.0              | 69.2     |
| Sep-89 | 166.8  | 161.6   | 121.3              | 55.8     |
| Oct-89 | 340.2  | 329.7   | 247.2              | 106.3    |
| Nov-89 | 335.4  | 325.2   | 243.8              | 116.6    |
| Dec-89 | 140.0  | 135.7   | 101.7              | 43.5     |

| Month  | Sawmill River Head of Tide<br>Carbon Load (lb/d) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 681.1  | 681.1   | 519.3              | 521.8    |
| Feb-88 | 1560.3   | 1560.3  | 1189.8             | 1194.7   |
| Mar-88 | 928.3  | 928.3   | 707.1              | 733.2    |
| Apr-88 | 549.4  | 549.4   | 420.2              | 426.6    |
| May-88 | 975.4  | 975.4   | 756.9              | 754.1    |
| Jun-88 | 505.8  | 505.8   | 413.3              | 308.3    |
| Jul-88 | 662.7  | 662.7   | 515.3              | 474.2    |
| Aug-88 | 300.6  | 300.6   | 241.9              | 198.7    |
| Sep-88 | 312.6  | 312.6   | 240.6              | 233.1    |
| Oct-88 | 312.0  | 312.0   | 242.5              | 214.9    |
| Nov-88 | 1496.2   | 1496.2  | 1145.4             | 1071.6   |
| Dec-88 | 582.6  | 582.6   | 444.0              | 446.1    |
| Jan-89 | 556.6  | 556.6   | 424.4              | 426.5    |
| Feb-89 | 691.5  | 691.5   | 527.3              | 529.5    |
| Mar-89 | 974.0  | 974.0   | 741.9              | 769.2    |
| Apr-89 | 1395.0   | 1395.0  | 1067.1             | 1083.3   |
| May-89 | 3202.9   | 3202.9  | 2485.2             | 2476.2   |
| Jun-89 | 1578.1   | 1578.1  | 1289.6             | 961.8    |
| Jul-89 | 682.7  | 682.7   | 531.0              | 488.6    |
| Aug-89 | 682.6  | 682.6   | 549.4              | 451.3    |
| Sep-89 | 489.3  | 489.3   | 376.5              | 364.9    |
| Oct-89 | 1007.8   | 1007.8  | 783.3              | 694.0    |
| Nov-89 | 1061.8   | 1061.8  | 812.9              | 760.5    |
| Dec-89 | 371.0  | 371.0   | 282.7              | 284.0    |

| Month  | Hackensack River Head of Tide<br>Total Nitrogen Concentration (mg/L) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 1.25   | 1.20  | 0.90               | 0.46     |
| Feb-88 | 1.33   | 1.28  | 0.96               | 0.46     |
| Mar-88 | 1.50   | 1.44  | 1.08               | 0.46     |
| Apr-88 | 0.99   | 0.95  | 0.72               | 0.46     |
| May-88 | 1.11   | 1.07  | 0.80               | 0.46     |
| Jun-88 | 1.52   | 1.46  | 1.10               | 0.46     |
| Jul-88 | 1.35   | 1.30  | 0.98               | 0.46     |
| Aug-88 | 1.35   | 1.30  | 0.98               | 0.46     |
| Sep-88 | 1.35   | 1.30  | 0.97               | 0.46     |
| Oct-88 | 1.35   | 1.30  | 0.97               | 0.46     |
| Nov-88 | 0.83   | 0.80  | 0.60               | 0.46     |
| Dec-88 | 0.75   | 0.73  | 0.55               | 0.46     |
| Jan-89 | 1.25   | 1.20  | 0.90               | 0.46     |
| Feb-89 | 1.33   | 1.28  | 0.96               | 0.46     |
| Mar-89 | 1.50   | 1.44  | 1.08               | 0.46     |
| Apr-89 | 0.99   | 0.95  | 0.72               | 0.46     |
| May-89 | 1.11   | 1.07  | 0.80               | 0.46     |
| Jun-89 | 1.52   | 1.46  | 1.10               | 0.46     |
| Jul-89 | 1.35   | 1.30  | 0.98               | 0.46     |
| Aug-89 | 1.35   | 1.30  | 0.98               | 0.46     |
| Sep-89 | 1.35   | 1.30  | 0.97               | 0.46     |
| Oct-89 | 1.35   | 1.30  | 0.97               | 0.46     |
| Nov-89 | 0.83   | 0.80  | 0.60               | 0.46     |
| Dec-89 | 0.75   | 0.73  | 0.55               | 0.46     |

| Month  | Hackensack River Head of Tide<br>Total Organic Carbon Concentration (mg/L) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 6.19   | 6.19  | 4.72               | 3.30     |
| Feb-88 | 5.89   | 5.89  | 4.49               | 3.30     |
| Mar-88 | 5.79   | 5.79  | 4.74               | 3.30     |
| Apr-88 | 6.62   | 6.62  | 5.27               | 3.29     |
| May-88 | 6.78   | 6.78  | 5.48               | 3.30     |
| Jun-88 | 7.47   | 7.47  | 6.06               | 3.31     |
| Jul-88 | 6.38   | 6.38  | 5.09               | 3.30     |
| Aug-88 | 6.38   | 6.38  | 5.09               | 3.30     |
| Sep-88 | 6.38   | 6.38  | 5.09               | 3.30     |
| Oct-88 | 6.38   | 6.38  | 5.09               | 3.30     |
| Nov-88 | 6.88   | 6.88  | 5.66               | 3.31     |
| Dec-88 | 5.92   | 5.92  | 4.74               | 3.30     |
| Jan-89 | 6.19   | 6.19  | 4.72               | 3.30     |
| Feb-89 | 5.89   | 5.89  | 4.49               | 3.30     |
| Mar-89 | 5.79   | 5.79  | 4.74               | 3.30     |
| Apr-89 | 6.62   | 6.62  | 5.27               | 3.29     |
| May-89 | 6.78   | 6.78  | 5.48               | 3.30     |
| Jun-89 | 7.47   | 7.47  | 6.06               | 3.31     |
| Jul-89 | 6.38   | 6.38  | 5.09               | 3.30     |
| Aug-89 | 6.38   | 6.38  | 5.09               | 3.30     |
| Sep-89 | 6.38   | 6.38  | 5.09               | 3.30     |
| Oct-89 | 6.38   | 6.38  | 5.09               | 3.30     |
| Nov-89 | 6.88   | 6.88  | 5.66               | 3.31     |
| Dec-89 | 5.92   | 5.92  | 4.74               | 3.30     |

| Month  | Hackensack River Head of Tide<br>Dissolved Oxygen Concentration (mg/L) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 6.0  | 6.0   | 6.0                | 6.0      |
| Feb-88 | 11.0   | 11.0  | 11.0               | 11.0     |
| Mar-88 | 13.0   | 13.0  | 13.0               | 13.0     |
| Apr-88 | 9.0  | 9.0   | 9.0                | 9.0      |
| May-88 | 5.0  | 5.0   | 5.0                | 5.0      |
| Jun-88 | 3.5  | 3.5   | 3.5                | 3.5      |
| Jul-88 | 2.0  | 2.0   | 2.0                | 2.0      |
| Aug-88 | 4.0  | 4.0   | 4.0                | 4.0      |
| Sep-88 | 4.5  | 4.5   | 4.5                | 4.5      |
| Oct-88 | 4.5  | 4.5   | 4.5                | 4.5      |
| Nov-88 | 7.0  | 7.0   | 7.0                | 7.0      |
| Dec-88 | 8.0  | 8.0   | 8.0                | 8.0      |
| Jan-89 | 6.0  | 6.0   | 6.0                | 6.0      |
| Feb-89 | 11.0   | 11.0  | 11.0               | 11.0     |
| Mar-89 | 13.0   | 13.0  | 13.0               | 13.0     |
| Apr-89 | 9.0  | 9.0   | 9.0                | 9.0      |
| May-89 | 5.0  | 5.0   | 5.0                | 5.0      |
| Jun-89 | 3.5  | 3.5   | 3.5                | 3.5      |
| Jul-89 | 2.0  | 2.0   | 2.0                | 2.0      |
| Aug-89 | 4.0  | 4.0   | 4.0                | 4.0      |
| Sep-89 | 4.5  | 4.5   | 4.5                | 4.5      |
| Oct-89 | 4.5  | 4.5   | 4.5                | 4.5      |
| Nov-89 | 7.0  | 7.0   | 7.0                | 7.0      |
| Dec-89 | 8.0  | 8.0   | 8.0                | 8.0      |

| Month  | Saddle River Head of Tide<br>Total Nitrogen Concentration (mg/L) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 2.20   | 2.12  | 1.59               | 0.16     |
| Feb-88 | 2.85   | 2.74  | 2.06               | 0.16     |
| Mar-88 | 2.31   | 2.22  | 1.67               | 0.16     |
| Apr-88 | 3.30   | 3.18  | 2.38               | 0.16     |
| May-88 | 4.00   | 3.85  | 2.89               | 0.16     |
| Jun-88 | 4.69   | 4.51  | 3.39               | 0.16     |
| Jul-88 | 4.11   | 3.96  | 2.97               | 0.16     |
| Aug-88 | 4.11   | 3.96  | 2.97               | 0.16     |
| Sep-88 | 4.11   | 3.96  | 2.97               | 0.16     |
| Oct-88 | 4.11   | 3.96  | 2.97               | 0.16     |
| Nov-88 | 2.21   | 2.12  | 1.60               | 0.16     |
| Dec-88 | 2.49   | 2.40  | 1.80               | 0.16     |
| Jan-89 | 2.20   | 2.12  | 1.59               | 0.16     |
| Feb-89 | 2.85   | 2.74  | 2.06               | 0.16     |
| Mar-89 | 2.31   | 2.22  | 1.67               | 0.16     |
| Apr-89 | 3.30   | 3.18  | 2.38               | 0.16     |
| May-89 | 4.00   | 3.85  | 2.89               | 0.16     |
| Jun-89 | 4.69   | 4.51  | 3.39               | 0.16     |
| Jul-89 | 4.11   | 3.96  | 2.97               | 0.16     |
| Aug-89 | 4.11   | 3.96  | 2.97               | 0.16     |
| Sep-89 | 4.11   | 3.96  | 2.97               | 0.16     |
| Oct-89 | 4.11   | 3.96  | 2.97               | 0.16     |
| Nov-89 | 2.21   | 2.12  | 1.60               | 0.16     |
| Dec-89 | 2.49   | 2.40  | 1.80               | 0.16     |

| Month  | Saddle River Head of Tide<br>Total Organic Carbon Concentration (mg/L) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 5.98   | 5.98  | 4.55               | 3.30     |
| Feb-88 | 4.98   | 4.98  | 3.80               | 3.30     |
| Mar-88 | 6.06   | 6.06  | 4.76               | 3.30     |
| Apr-88 | 7.30   | 7.30  | 6.07               | 3.30     |
| May-88 | 9.05   | 9.05  | 7.48               | 3.31     |
| Jun-88 | 10.32  | 10.32   | 8.60               | 3.30     |
| Jul-88 | 13.00  | 13.00   | 10.09              | 3.30     |
| Aug-88 | 8.46   | 8.46  | 6.68               | 3.30     |
| Sep-88 | 7.95   | 7.95  | 6.31               | 3.30     |
| Oct-88 | 7.95   | 7.95  | 6.31               | 3.30     |
| Nov-88 | 7.76   | 7.76  | 6.14               | 3.30     |
| Dec-88 | 6.89   | 6.89  | 5.40               | 3.30     |
| Jan-89 | 5.98   | 5.98  | 4.55               | 3.30     |
| Feb-89 | 4.98   | 4.98  | 3.80               | 3.30     |
| Mar-89 | 6.06   | 6.06  | 4.76               | 3.30     |
| Apr-89 | 7.30   | 7.30  | 6.07               | 3.30     |
| May-89 | 9.05   | 9.05  | 7.48               | 3.31     |
| Jun-89 | 10.32  | 10.32   | 8.60               | 3.30     |
| Jul-89 | 13.00  | 13.00   | 10.09              | 3.30     |
| Aug-89 | 8.46   | 8.46  | 6.68               | 3.30     |
| Sep-89 | 7.95   | 7.95  | 6.31               | 3.30     |
| Oct-89 | 7.95   | 7.95  | 6.31               | 3.30     |
| Nov-89 | 7.76   | 7.76  | 6.14               | 3.30     |
| Dec-89 | 6.89   | 6.89  | 5.40               | 3.30     |

| Month  | Saddle River Head of Tide<br>Dissolved Oxygen Concentration (mg/L) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 10.0   | 10.0  | 10.0               | 10.0     |
| Feb-88 | 11.0   | 11.0  | 11.0               | 11.0     |
| Mar-88 | 11.0   | 11.0  | 11.0               | 11.0     |
| Apr-88 | 10.5   | 10.5  | 10.5               | 10.5     |
| May-88 | 5.0  | 5.0   | 5.0                | 5.0      |
| Jun-88 | 5.5  | 5.5   | 5.5                | 5.5      |
| Jul-88 | 6.0  | 6.0   | 6.0                | 6.0      |
| Aug-88 | 7.0  | 7.0   | 7.0                | 7.0      |
| Sep-88 | 6.0  | 6.0   | 6.0                | 6.0      |
| Oct-88 | 6.0  | 6.0   | 6.0                | 6.0      |
| Nov-88 | 10.0   | 10.0  | 10.0               | 10.0     |
| Dec-88 | 13.0   | 13.0  | 13.0               | 13.0     |
| Jan-89 | 10.0   | 10.0  | 10.0               | 10.0     |
| Feb-89 | 11.0   | 11.0  | 11.0               | 11.0     |
| Mar-89 | 11.0   | 11.0  | 11.0               | 11.0     |
| Apr-89 | 10.5   | 10.5  | 10.5               | 10.5     |
| May-89 | 5.0  | 5.0   | 5.0                | 5.0      |
| Jun-89 | 5.5  | 5.5   | 5.5                | 5.5      |
| Jul-89 | 6.0  | 6.0   | 6.0                | 6.0      |
| Aug-89 | 7.0  | 7.0   | 7.0                | 7.0      |
| Sep-89 | 6.0  | 6.0   | 6.0                | 6.0      |
| Oct-89 | 6.0  | 6.0   | 6.0                | 6.0      |
| Nov-89 | 10.0   | 10.0  | 10.0               | 10.0     |
| Dec-89 | 13.0   | 13.0  | 13.0               | 13.0     |



| Month  | Passaic River Head of Tide<br>Total Nitrogen Concentration (mg/L) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 2.20  | 2.12  | 1.59               | 0.48     |
| Feb-88 | 2.85  | 2.74  | 2.06               | 0.48     |
| Mar-88 | 2.31  | 2.22  | 1.67               | 0.48     |
| Apr-88 | 3.30  | 3.18  | 2.38               | 0.48     |
| May-88 | 4.00  | 3.85  | 2.89               | 0.48     |
| Jun-88 | 4.69  | 4.51  | 3.39               | 0.48     |
| Jul-88 | 4.11  | 3.96  | 2.97               | 0.48     |
| Aug-88 | 4.11  | 3.96  | 2.97               | 0.48     |
| Sep-88 | 4.11  | 3.96  | 2.97               | 0.48     |
| Oct-88 | 4.11  | 3.96  | 2.97               | 0.48     |
| Nov-88 | 2.21  | 2.12  | 1.60               | 0.48     |
| Dec-88 | 2.49  | 2.40  | 1.80               | 0.48     |
| Jan-89 | 2.20  | 2.12  | 1.59               | 0.48     |
| Feb-89 | 2.85  | 2.74  | 2.06               | 0.48     |
| Mar-89 | 2.31  | 2.22  | 1.67               | 0.48     |
| Apr-89 | 3.30  | 3.18  | 2.38               | 0.48     |
| May-89 | 4.00  | 3.85  | 2.89               | 0.48     |
| Jun-89 | 4.69  | 4.51  | 3.39               | 0.48     |
| Jul-89 | 4.11  | 3.96  | 2.97               | 0.48     |
| Aug-89 | 4.11  | 3.96  | 2.97               | 0.48     |
| Sep-89 | 4.11  | 3.96  | 2.97               | 0.48     |
| Oct-89 | 4.11  | 3.96  | 2.97               | 0.48     |
| Nov-89 | 2.21  | 2.12  | 1.60               | 0.48     |
| Dec-89 | 2.49  | 2.40  | 1.80               | 0.48     |

| Month  | Passaic River Head of Tide<br>Total Organic Carbon Concentration (mg/L) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 5.98  | 5.98  | 4.55               | 3.31     |
| Feb-88 | 4.98  | 4.98  | 3.80               | 3.30     |
| Mar-88 | 6.06  | 6.06  | 4.76               | 3.30     |
| Apr-88 | 7.30  | 7.30  | 6.07               | 3.30     |
| May-88 | 9.05  | 9.05  | 7.48               | 3.31     |
| Jun-88 | 10.32   | 10.32   | 8.60               | 3.30     |
| Jul-88 | 13.00   | 13.00   | 10.09              | 3.30     |
| Aug-88 | 8.46  | 8.46  | 6.68               | 3.29     |
| Sep-88 | 7.95  | 7.95  | 6.31               | 3.30     |
| Oct-88 | 7.95  | 7.95  | 6.31               | 3.29     |
| Nov-88 | 7.76  | 7.76  | 6.14               | 3.31     |
| Dec-88 | 6.89  | 6.89  | 5.40               | 3.30     |
| Jan-89 | 5.98  | 5.98  | 4.55               | 3.31     |
| Feb-89 | 4.98  | 4.98  | 3.80               | 3.30     |
| Mar-89 | 6.06  | 6.06  | 4.76               | 3.30     |
| Apr-89 | 7.30  | 7.30  | 6.07               | 3.30     |
| May-89 | 9.05  | 9.05  | 7.48               | 3.31     |
| Jun-89 | 10.32   | 10.32   | 8.60               | 3.30     |
| Jul-89 | 13.00   | 13.00   | 10.09              | 3.30     |
| Aug-89 | 8.46  | 8.46  | 6.68               | 3.29     |
| Sep-89 | 7.95  | 7.95  | 6.31               | 3.30     |
| Oct-89 | 7.95  | 7.95  | 6.31               | 3.29     |
| Nov-89 | 7.76  | 7.76  | 6.14               | 3.31     |
| Dec-89 | 6.89  | 6.89  | 5.40               | 3.30     |

| Month  | Passaic River Head of Tide<br>Dissolved Oxygen Concentration (mg/L) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 10.0  | 10.0  | 10.0               | 10.0     |
| Feb-88 | 11.0  | 11.0  | 11.0               | 11.0     |
| Mar-88 | 11.0  | 11.0  | 11.0               | 11.0     |
| Apr-88 | 10.5  | 10.5  | 10.5               | 10.5     |
| May-88 | 5.0   | 5.0   | 5.0                | 5.0      |
| Jun-88 | 5.5   | 5.5   | 5.5                | 5.5      |
| Jul-88 | 6.0   | 6.0   | 6.0                | 6.0      |
| Aug-88 | 7.0   | 7.0   | 7.0                | 7.0      |
| Sep-88 | 6.0   | 6.0   | 6.0                | 6.0      |
| Oct-88 | 6.0   | 6.0   | 6.0                | 6.0      |
| Nov-88 | 10.0  | 10.0  | 10.0               | 10.0     |
| Dec-88 | 13.0  | 13.0  | 13.0               | 13.0     |
| Jan-89 | 10.0  | 10.0  | 10.0               | 10.0     |
| Feb-89 | 11.0  | 11.0  | 11.0               | 11.0     |
| Mar-89 | 11.0  | 11.0  | 11.0               | 11.0     |
| Apr-89 | 10.5  | 10.5  | 10.5               | 10.5     |
| May-89 | 5.0   | 5.0   | 5.0                | 5.0      |
| Jun-89 | 5.5   | 5.5   | 5.5                | 5.5      |
| Jul-89 | 6.0   | 6.0   | 6.0                | 6.0      |
| Aug-89 | 7.0   | 7.0   | 7.0                | 7.0      |
| Sep-89 | 6.0   | 6.0   | 6.0                | 6.0      |
| Oct-89 | 6.0   | 6.0   | 6.0                | 6.0      |
| Nov-89 | 10.0  | 10.0  | 10.0               | 10.0     |
| Dec-89 | 13.0  | 13.0  | 13.0               | 13.0     |

| Month  | Raritan River Head of Tide<br>Total Nitrogen Concentration (mg/L) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 2.49  | 2.28  | 1.71               | 0.15     |
| Feb-88 | 2.30  | 2.10  | 1.58               | 0.15     |
| Mar-88 | 2.28  | 2.09  | 1.57               | 0.15     |
| Apr-88 | 2.50  | 2.29  | 1.71               | 0.15     |
| May-88 | 1.96  | 1.80  | 1.35               | 0.15     |
| Jun-88 | 2.44  | 2.24  | 1.67               | 0.15     |
| Jul-88 | 2.73  | 2.50  | 1.87               | 0.15     |
| Aug-88 | 2.34  | 2.14  | 1.60               | 0.15     |
| Sep-88 | 2.34  | 2.15  | 1.60               | 0.15     |
| Oct-88 | 2.34  | 2.15  | 1.60               | 0.15     |
| Nov-88 | 2.34  | 2.15  | 1.60               | 0.15     |
| Dec-88 | 2.79  | 2.56  | 1.92               | 0.15     |
| Jan-89 | 2.49  | 2.28  | 1.71               | 0.15     |
| Feb-89 | 2.30  | 2.10  | 1.58               | 0.15     |
| Mar-89 | 2.28  | 2.09  | 1.57               | 0.15     |
| Apr-89 | 2.50  | 2.29  | 1.71               | 0.15     |
| May-89 | 1.96  | 1.80  | 1.35               | 0.15     |
| Jun-89 | 2.44  | 2.24  | 1.67               | 0.15     |
| Jul-89 | 2.73  | 2.50  | 1.87               | 0.15     |
| Aug-89 | 2.34  | 2.14  | 1.60               | 0.15     |
| Sep-89 | 2.34  | 2.15  | 1.60               | 0.15     |
| Oct-89 | 2.34  | 2.15  | 1.60               | 0.15     |
| Nov-89 | 2.34  | 2.15  | 1.60               | 0.15     |
| Dec-89 | 2.79  | 2.56  | 1.92               | 0.15     |

| Month  | Raritan River Head of Tide<br>Total Organic Carbon Concentration (mg/L) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 4.20  | 4.20  | 3.19               | 3.30     |
| Feb-88 | 4.29  | 4.29  | 3.26               | 3.30     |
| Mar-88 | 5.76  | 5.76  | 4.36               | 3.30     |
| Apr-88 | 5.21  | 5.21  | 4.16               | 3.29     |
| May-88 | 5.49  | 5.49  | 4.37               | 3.30     |
| Jun-88 | 5.05  | 5.05  | 3.83               | 3.30     |
| Jul-88 | 9.00  | 9.00  | 7.50               | 3.30     |
| Aug-88 | 6.02  | 6.02  | 4.65               | 3.30     |
| Sep-88 | 6.02  | 6.02  | 4.55               | 3.31     |
| Oct-88 | 6.02  | 6.02  | 4.55               | 3.31     |
| Nov-88 | 6.02  | 6.02  | 4.55               | 3.31     |
| Dec-88 | 5.85  | 5.85  | 4.43               | 3.30     |
| Jan-89 | 4.20  | 4.20  | 3.19               | 3.30     |
| Feb-89 | 4.29  | 4.29  | 3.26               | 3.30     |
| Mar-89 | 5.76  | 5.76  | 4.36               | 3.30     |
| Apr-89 | 5.21  | 5.21  | 4.16               | 3.29     |
| May-89 | 5.49  | 5.49  | 4.37               | 3.30     |
| Jun-89 | 5.05  | 5.05  | 3.83               | 3.30     |
| Jul-89 | 9.00  | 9.00  | 7.50               | 3.30     |
| Aug-89 | 6.02  | 6.02  | 4.65               | 3.30     |
| Sep-89 | 6.02  | 6.02  | 4.55               | 3.31     |
| Oct-89 | 6.02  | 6.02  | 4.55               | 3.31     |
| Nov-89 | 6.02  | 6.02  | 4.55               | 3.31     |
| Dec-89 | 5.85  | 5.85  | 4.43               | 3.30     |

| Month  | Raritan River Head of Tide<br>Dissolved Oxygen Concentration (mg/L) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 12.0  | 12.0  | 12.0               | 12.0     |
| Feb-88 | 12.0  | 12.0  | 12.0               | 12.0     |
| Mar-88 | 14.0  | 14.0  | 14.0               | 14.0     |
| Apr-88 | 14.0  | 14.0  | 14.0               | 14.0     |
| May-88 | 3.5   | 3.5   | 3.5                | 3.5      |
| Jun-88 | 5.3   | 5.3   | 5.3                | 5.3      |
| Jul-88 | 7.0   | 7.0   | 7.0                | 7.0      |
| Aug-88 | 4.5   | 4.5   | 4.5                | 4.5      |
| Sep-88 | 8.0   | 8.0   | 8.0                | 8.0      |
| Oct-88 | 8.0   | 8.0   | 8.0                | 8.0      |
| Nov-88 | 10.0  | 10.0  | 10.0               | 10.0     |
| Dec-88 | 12.0  | 12.0  | 12.0               | 12.0     |
| Jan-89 | 12.0  | 12.0  | 12.0               | 12.0     |
| Feb-89 | 12.0  | 12.0  | 12.0               | 12.0     |
| Mar-89 | 14.0  | 14.0  | 14.0               | 14.0     |
| Apr-89 | 14.0  | 14.0  | 14.0               | 14.0     |
| May-89 | 3.5   | 3.5   | 3.5                | 3.5      |
| Jun-89 | 5.3   | 5.3   | 5.3                | 5.3      |
| Jul-89 | 7.0   | 7.0   | 7.0                | 7.0      |
| Aug-89 | 4.5   | 4.5   | 4.5                | 4.5      |
| Sep-89 | 8.0   | 8.0   | 8.0                | 8.0      |
| Oct-89 | 8.0   | 8.0   | 8.0                | 8.0      |
| Nov-89 | 10.0  | 10.0  | 10.0               | 10.0     |
| Dec-89 | 12.0  | 12.0  | 12.0               | 12.0     |

| Month  | South River Head of Tide<br>Total Nitrogen Concentration (mg/L) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 2.49  | 2.28  | 1.71               | 0.51     |
| Feb-88 | 2.30  | 2.10  | 1.58               | 0.51     |
| Mar-88 | 2.28  | 2.09  | 1.57               | 0.51     |
| Apr-88 | 2.50  | 2.29  | 1.71               | 0.51     |
| May-88 | 1.96  | 1.80  | 1.35               | 0.51     |
| Jun-88 | 2.44  | 2.24  | 1.67               | 0.51     |
| Jul-88 | 2.73  | 2.50  | 1.87               | 0.51     |
| Aug-88 | 2.34  | 2.14  | 1.60               | 0.51     |
| Sep-88 | 2.34  | 2.15  | 1.60               | 0.51     |
| Oct-88 | 2.34  | 2.15  | 1.60               | 0.51     |
| Nov-88 | 2.34  | 2.15  | 1.60               | 0.51     |
| Dec-88 | 2.79  | 2.56  | 1.92               | 0.51     |
| Jan-89 | 2.49  | 2.28  | 1.71               | 0.51     |
| Feb-89 | 2.30  | 2.10  | 1.58               | 0.51     |
| Mar-89 | 2.28  | 2.09  | 1.57               | 0.51     |
| Apr-89 | 2.50  | 2.29  | 1.71               | 0.51     |
| May-89 | 1.96  | 1.80  | 1.35               | 0.51     |
| Jun-89 | 2.44  | 2.24  | 1.67               | 0.51     |
| Jul-89 | 2.73  | 2.50  | 1.87               | 0.51     |
| Aug-89 | 2.34  | 2.14  | 1.60               | 0.51     |
| Sep-89 | 2.34  | 2.15  | 1.60               | 0.51     |
| Oct-89 | 2.34  | 2.15  | 1.60               | 0.51     |
| Nov-89 | 2.34  | 2.15  | 1.60               | 0.51     |
| Dec-89 | 2.79  | 2.56  | 1.92               | 0.51     |

| Month  | South River Head of Tide<br>Total Organic Carbon Concentration (mg/L) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 4.20  | 4.20  | 3.19               | 3.30     |
| Feb-88 | 4.29  | 4.29  | 3.26               | 3.30     |
| Mar-88 | 5.76  | 5.76  | 4.36               | 3.31     |
| Apr-88 | 5.21  | 5.21  | 4.16               | 3.31     |
| May-88 | 5.49  | 5.49  | 4.37               | 3.30     |
| Jun-88 | 5.05  | 5.05  | 3.83               | 3.30     |
| Jul-88 | 9.00  | 9.00  | 7.50               | 3.31     |
| Aug-88 | 6.02  | 6.02  | 4.65               | 3.29     |
| Sep-88 | 6.02  | 6.02  | 4.55               | 3.30     |
| Oct-88 | 6.02  | 6.02  | 4.55               | 3.30     |
| Nov-88 | 6.02  | 6.02  | 4.55               | 3.30     |
| Dec-88 | 5.85  | 5.85  | 4.43               | 3.30     |
| Jan-89 | 4.20  | 4.20  | 3.19               | 3.30     |
| Feb-89 | 4.29  | 4.29  | 3.26               | 3.30     |
| Mar-89 | 5.76  | 5.76  | 4.36               | 3.31     |
| Apr-89 | 5.21  | 5.21  | 4.16               | 3.31     |
| May-89 | 5.49  | 5.49  | 4.37               | 3.30     |
| Jun-89 | 5.05  | 5.05  | 3.83               | 3.30     |
| Jul-89 | 9.00  | 9.00  | 7.50               | 3.31     |
| Aug-89 | 6.02  | 6.02  | 4.65               | 3.29     |
| Sep-89 | 6.02  | 6.02  | 4.55               | 3.30     |
| Oct-89 | 6.02  | 6.02  | 4.55               | 3.30     |
| Nov-89 | 6.02  | 6.02  | 4.55               | 3.30     |
| Dec-89 | 5.85  | 5.85  | 4.43               | 3.30     |



| Month  | South River Head of Tide<br>Dissolved Oxygen Concentration (mg/L) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 12.0  | 12.0  | 12.0               | 12.0     |
| Feb-88 | 12.0  | 12.0  | 12.0               | 12.0     |
| Mar-88 | 14.0  | 14.0  | 14.0               | 14.0     |
| Apr-88 | 14.0  | 14.0  | 14.0               | 14.0     |
| May-88 | 3.5   | 3.5   | 3.5                | 3.5      |
| Jun-88 | 5.3   | 5.3   | 5.3                | 5.3      |
| Jul-88 | 7.0   | 7.0   | 7.0                | 7.0      |
| Aug-88 | 4.5   | 4.5   | 4.5                | 4.5      |
| Sep-88 | 8.0   | 8.0   | 8.0                | 8.0      |
| Oct-88 | 8.0   | 8.0   | 8.0                | 8.0      |
| Nov-88 | 10.0  | 10.0  | 10.0               | 10.0     |
| Dec-88 | 12.0  | 12.0  | 12.0               | 12.0     |
| Jan-89 | 12.0  | 12.0  | 12.0               | 12.0     |
| Feb-89 | 12.0  | 12.0  | 12.0               | 12.0     |
| Mar-89 | 14.0  | 14.0  | 14.0               | 14.0     |
| Apr-89 | 14.0  | 14.0  | 14.0               | 14.0     |
| May-89 | 3.5   | 3.5   | 3.5                | 3.5      |
| Jun-89 | 5.3   | 5.3   | 5.3                | 5.3      |
| Jul-89 | 7.0   | 7.0   | 7.0                | 7.0      |
| Aug-89 | 4.5   | 4.5   | 4.5                | 4.5      |
| Sep-89 | 8.0   | 8.0   | 8.0                | 8.0      |
| Oct-89 | 8.0   | 8.0   | 8.0                | 8.0      |
| Nov-89 | 10.0  | 10.0  | 10.0               | 10.0     |
| Dec-89 | 12.0  | 12.0  | 12.0               | 12.0     |

| Month  | Navesink/Shrewbury River Head of Tide<br>Total Nitrogen Concentration (mg/L) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 1.72   | 1.70  | 1.28               | 0.57     |
| Feb-88 | 1.73   | 1.71  | 1.28               | 0.57     |
| Mar-88 | 1.60   | 1.59  | 1.19               | 0.57     |
| Apr-88 | 1.53   | 1.52  | 1.14               | 0.57     |
| May-88 | 1.43   | 1.42  | 1.07               | 0.57     |
| Jun-88 | 1.48   | 1.47  | 1.10               | 0.57     |
| Jul-88 | 1.52   | 1.51  | 1.13               | 0.57     |
| Aug-88 | 1.46   | 1.44  | 1.08               | 0.57     |
| Sep-88 | 1.51   | 1.50  | 1.12               | 0.57     |
| Oct-88 | 1.62   | 1.60  | 1.20               | 0.57     |
| Nov-88 | 1.45   | 1.44  | 1.08               | 0.57     |
| Dec-88 | 1.63   | 1.61  | 1.21               | 0.57     |
| Jan-89 | 1.72   | 1.70  | 1.28               | 0.57     |
| Feb-89 | 1.73   | 1.71  | 1.28               | 0.57     |
| Mar-89 | 1.60   | 1.59  | 1.19               | 0.57     |
| Apr-89 | 1.53   | 1.52  | 1.14               | 0.57     |
| May-89 | 1.43   | 1.42  | 1.07               | 0.57     |
| Jun-89 | 1.48   | 1.47  | 1.10               | 0.57     |
| Jul-89 | 1.52   | 1.51  | 1.13               | 0.57     |
| Aug-89 | 1.46   | 1.44  | 1.08               | 0.57     |
| Sep-89 | 1.51   | 1.50  | 1.12               | 0.57     |
| Oct-89 | 1.62   | 1.60  | 1.20               | 0.57     |
| Nov-89 | 1.45   | 1.44  | 1.08               | 0.57     |
| Dec-89 | 1.63   | 1.61  | 1.21               | 0.57     |

| Month  | Navesink/Shrewbury River Head of Tide<br>Total Organic Carbon Concentration (mg/L) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 4.30   | 4.30  | 3.29               | 3.29     |
| Feb-88 | 4.31   | 4.31  | 3.29               | 3.30     |
| Mar-88 | 4.18   | 4.18  | 3.19               | 3.30     |
| Apr-88 | 4.25   | 4.25  | 3.25               | 3.30     |
| May-88 | 4.27   | 4.27  | 3.31               | 3.30     |
| Jun-88 | 5.42   | 5.42  | 4.43               | 3.31     |
| Jul-88 | 4.60   | 4.60  | 3.59               | 3.30     |
| Aug-88 | 4.99   | 4.99  | 4.01               | 3.30     |
| Sep-88 | 4.43   | 4.43  | 3.41               | 3.31     |
| Oct-88 | 4.79   | 4.79  | 3.73               | 3.30     |
| Nov-88 | 4.61   | 4.61  | 3.52               | 3.30     |
| Dec-88 | 4.30   | 4.30  | 3.28               | 3.30     |
| Jan-89 | 4.30   | 4.30  | 3.29               | 3.29     |
| Feb-89 | 4.31   | 4.31  | 3.29               | 3.30     |
| Mar-89 | 4.18   | 4.18  | 3.19               | 3.30     |
| Apr-89 | 4.25   | 4.25  | 3.25               | 3.30     |
| May-89 | 4.27   | 4.27  | 3.31               | 3.30     |
| Jun-89 | 5.42   | 5.42  | 4.43               | 3.31     |
| Jul-89 | 4.60   | 4.60  | 3.59               | 3.30     |
| Aug-89 | 4.99   | 4.99  | 4.01               | 3.30     |
| Sep-89 | 4.43   | 4.43  | 3.41               | 3.31     |
| Oct-89 | 4.79   | 4.79  | 3.73               | 3.30     |
| Nov-89 | 4.61   | 4.61  | 3.52               | 3.30     |
| Dec-89 | 4.30   | 4.30  | 3.28               | 3.30     |

| Month  | Navesink/Shrewbury River Head of Tide<br>Dissolved Oxygen Concentration (mg/L) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 13.4   | 13.4  | 13.4               | 13.4     |
| Feb-88 | 13.6   | 13.6  | 13.6               | 13.6     |
| Mar-88 | 14.9   | 14.9  | 14.9               | 14.9     |
| Apr-88 | 11.5   | 11.5  | 11.5               | 11.5     |
| May-88 | 11.0   | 11.0  | 11.0               | 11.0     |
| Jun-88 | 10.0   | 10.0  | 10.0               | 10.0     |
| Jul-88 | 9.4  | 9.4   | 9.4                | 9.4      |
| Aug-88 | 9.8  | 9.8   | 9.8                | 9.8      |
| Sep-88 | 9.6  | 9.6   | 9.6                | 9.6      |
| Oct-88 | 9.6  | 9.6   | 9.6                | 9.6      |
| Nov-88 | 11.3   | 11.3  | 11.3               | 11.3     |
| Dec-88 | 12.6   | 12.6  | 12.6               | 12.6     |
| Jan-89 | 13.4   | 13.4  | 13.4               | 13.4     |
| Feb-89 | 13.6   | 13.6  | 13.6               | 13.6     |
| Mar-89 | 14.9   | 14.9  | 14.9               | 14.9     |
| Apr-89 | 11.5   | 11.5  | 11.5               | 11.5     |
| May-89 | 11.0   | 11.0  | 11.0               | 11.0     |
| Jun-89 | 10.0   | 10.0  | 10.0               | 10.0     |
| Jul-89 | 9.4  | 9.4   | 9.4                | 9.4      |
| Aug-89 | 9.8  | 9.8   | 9.8                | 9.8      |
| Sep-89 | 9.6  | 9.6   | 9.6                | 9.6      |
| Oct-89 | 9.6  | 9.6   | 9.6                | 9.6      |
| Nov-89 | 11.3   | 11.3  | 11.3               | 11.3     |
| Dec-89 | 12.6   | 12.6  | 12.6               | 12.6     |

| Month  | Sawmill River Head of Tide<br>Total Nitrogen Concentration (mg/L) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 1.72  | 1.66  | 1.25               | 0.51     |
| Feb-88 | 1.73  | 1.68  | 1.26               | 0.51     |
| Mar-88 | 1.60  | 1.56  | 1.17               | 0.51     |
| Apr-88 | 1.53  | 1.48  | 1.11               | 0.51     |
| May-88 | 1.43  | 1.39  | 1.04               | 0.51     |
| Jun-88 | 1.48  | 1.44  | 1.08               | 0.51     |
| Jul-88 | 1.52  | 1.47  | 1.10               | 0.51     |
| Aug-88 | 1.46  | 1.41  | 1.06               | 0.51     |
| Sep-88 | 1.51  | 1.46  | 1.10               | 0.51     |
| Oct-88 | 1.62  | 1.57  | 1.18               | 0.51     |
| Nov-88 | 1.45  | 1.41  | 1.06               | 0.51     |
| Dec-88 | 1.63  | 1.58  | 1.18               | 0.51     |
| Jan-89 | 1.72  | 1.66  | 1.25               | 0.51     |
| Feb-89 | 1.73  | 1.68  | 1.26               | 0.51     |
| Mar-89 | 1.60  | 1.56  | 1.17               | 0.51     |
| Apr-89 | 1.53  | 1.48  | 1.11               | 0.51     |
| May-89 | 1.43  | 1.39  | 1.04               | 0.51     |
| Jun-89 | 1.48  | 1.44  | 1.08               | 0.51     |
| Jul-89 | 1.52  | 1.47  | 1.10               | 0.51     |
| Aug-89 | 1.46  | 1.41  | 1.06               | 0.51     |
| Sep-89 | 1.51  | 1.46  | 1.10               | 0.51     |
| Oct-89 | 1.62  | 1.57  | 1.18               | 0.51     |
| Nov-89 | 1.45  | 1.41  | 1.06               | 0.51     |
| Dec-89 | 1.63  | 1.58  | 1.18               | 0.51     |

| Month  | Sawmill River Head of Tide<br>Total Organic Carbon Concentration (mg/L) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 4.30  | 4.30  | 3.29               | 3.29     |
| Feb-88 | 4.31  | 4.31  | 3.29               | 3.30     |
| Mar-88 | 4.18  | 4.18  | 3.19               | 3.30     |
| Apr-88 | 4.25  | 4.25  | 3.25               | 3.30     |
| May-88 | 4.27  | 4.27  | 3.31               | 3.30     |
| Jun-88 | 5.42  | 5.42  | 4.43               | 3.31     |
| Jul-88 | 4.60  | 4.60  | 3.59               | 3.30     |
| Aug-88 | 4.99  | 4.99  | 4.01               | 3.30     |
| Sep-88 | 4.43  | 4.43  | 3.41               | 3.31     |
| Oct-88 | 4.79  | 4.79  | 3.73               | 3.30     |
| Nov-88 | 4.61  | 4.61  | 3.52               | 3.30     |
| Dec-88 | 4.30  | 4.30  | 3.28               | 3.30     |
| Jan-89 | 4.30  | 4.30  | 3.29               | 3.29     |
| Feb-89 | 4.31  | 4.31  | 3.29               | 3.30     |
| Mar-89 | 4.18  | 4.18  | 3.19               | 3.30     |
| Apr-89 | 4.25  | 4.25  | 3.25               | 3.30     |
| May-89 | 4.27  | 4.27  | 3.31               | 3.30     |
| Jun-89 | 5.42  | 5.42  | 4.43               | 3.31     |
| Jul-89 | 4.60  | 4.60  | 3.59               | 3.30     |
| Aug-89 | 4.99  | 4.99  | 4.01               | 3.30     |
| Sep-89 | 4.43  | 4.43  | 3.41               | 3.31     |
| Oct-89 | 4.79  | 4.79  | 3.73               | 3.30     |
| Nov-89 | 4.61  | 4.61  | 3.52               | 3.30     |
| Dec-89 | 4.30  | 4.30  | 3.28               | 3.30     |

| Month  | Sawmill River Head of Tide<br>Dissolved Oxygen Concentration (mg/L) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 13.4  | 13.4  | 13.4               | 13.4     |
| Feb-88 | 13.6  | 13.6  | 13.6               | 13.6     |
| Mar-88 | 14.9  | 14.9  | 14.9               | 14.9     |
| Apr-88 | 11.5  | 11.5  | 11.5               | 11.5     |
| May-88 | 11.0  | 11.0  | 11.0               | 11.0     |
| Jun-88 | 10.0  | 10.0  | 10.0               | 10.0     |
| Jul-88 | 9.4   | 9.4   | 9.4                | 9.4      |
| Aug-88 | 9.8   | 9.8   | 9.8                | 9.8      |
| Sep-88 | 9.6   | 9.6   | 9.6                | 9.6      |
| Oct-88 | 9.6   | 9.6   | 9.6                | 9.6      |
| Nov-88 | 11.3  | 11.3  | 11.3               | 11.3     |
| Dec-88 | 12.6  | 12.6  | 12.6               | 12.6     |
| Jan-89 | 13.4  | 13.4  | 13.4               | 13.4     |
| Feb-89 | 13.6  | 13.6  | 13.6               | 13.6     |
| Mar-89 | 14.9  | 14.9  | 14.9               | 14.9     |
| Apr-89 | 11.5  | 11.5  | 11.5               | 11.5     |
| May-89 | 11.0  | 11.0  | 11.0               | 11.0     |
| Jun-89 | 10.0  | 10.0  | 10.0               | 10.0     |
| Jul-89 | 9.4   | 9.4   | 9.4                | 9.4      |
| Aug-89 | 9.8   | 9.8   | 9.8                | 9.8      |
| Sep-89 | 9.6   | 9.6   | 9.6                | 9.6      |
| Oct-89 | 9.6   | 9.6   | 9.6                | 9.6      |
| Nov-89 | 11.3  | 11.3  | 11.3               | 11.3     |
| Dec-89 | 12.6  | 12.6  | 12.6               | 12.6     |

| Month  | Hackensack River Storm Water<br>Nitrogen Load (lb) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 57876  | 54033   | 54033              | 16448    |
| Feb-88 | 64481  | 60200   | 60200              | 18325    |
| Mar-88 | 33027  | 30834   | 30834              | 9386     |
| Apr-88 | 29410  | 27457   | 27457              | 8358     |
| May-88 | 90117  | 84133   | 84133              | 25610    |
| Jun-88 | 16042  | 14976   | 14976              | 4559     |
| Jul-88 | 156643   | 146242  | 146241             | 44516    |
| Aug-88 | 27994  | 26136   | 26135              | 7956     |
| Sep-88 | 26107  | 24374   | 24373              | 7419     |
| Oct-88 | 37745  | 35239   | 35239              | 10727    |
| Nov-88 | 119998   | 112030  | 112030             | 34102    |
| Dec-88 | 15255  | 14242   | 14242              | 4335     |
| Jan-89 | 29567  | 27604   | 27604              | 8403     |
| Feb-89 | 42149  | 39350   | 39350              | 11978    |
| Mar-89 | 69357  | 64751   | 64751              | 19710    |
| Apr-89 | 50327  | 46985   | 46985              | 14302    |
| May-89 | 138871   | 129650  | 129649             | 39465    |
| Jun-89 | 83668  | 78113   | 78113              | 23777    |
| Jul-89 | 81938  | 76498   | 76498              | 23286    |
| Aug-89 | 109461   | 102193  | 102192             | 31107    |
| Sep-89 | 101283   | 94558   | 94557              | 28783    |
| Oct-89 | 84769  | 79141   | 79140              | 24090    |
| Nov-89 | 39790  | 37148   | 37148              | 11308    |
| Dec-89 | 10223  | 9544  | 9544               | 2905     |



| Month  | Hackensack River Storm Water<br>Carbon Load (lb) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 525150   | 525150  | 525150             | 107479   |
| Feb-88 | 585086   | 585086  | 585086             | 119746   |
| Mar-88 | 299678   | 299678  | 299678             | 61333    |
| Apr-88 | 266856   | 266856  | 266856             | 54616    |
| May-88 | 817693   | 817693  | 817693             | 167352   |
| Jun-88 | 145558   | 145558  | 145558             | 29790    |
| Jul-88 | 1421331  | 1421331   | 1421331            | 290895   |
| Aug-88 | 254013   | 254013  | 254013             | 51987    |
| Sep-88 | 236888   | 236888  | 236888             | 48483    |
| Oct-88 | 342489   | 342489  | 342489             | 70095    |
| Nov-88 | 1088831  | 1088831   | 1088831            | 222844   |
| Dec-88 | 138423   | 138423  | 138423             | 28330    |
| Jan-89 | 268283   | 268283  | 268283             | 54908    |
| Feb-89 | 382446   | 382446  | 382446             | 78273    |
| Mar-89 | 629324   | 629324  | 629324             | 128800   |
| Apr-89 | 456652   | 456652  | 456652             | 93460    |
| May-89 | 1260075  | 1260075   | 1260075            | 257892   |
| Jun-89 | 759185   | 759185  | 759185             | 155378   |
| Jul-89 | 743487   | 743487  | 743487             | 152165   |
| Aug-89 | 993219   | 993219  | 993219             | 203276   |
| Sep-89 | 919013   | 919013  | 919013             | 188089   |
| Oct-89 | 769174   | 769174  | 769174             | 157422   |
| Nov-89 | 361041   | 361041  | 361041             | 73892    |
| Dec-89 | 92757  | 92757   | 92757              | 18984    |

| Month  | Hackensack River CSO<br>Nitrogen Load (lb) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline                                   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 27816                                      | 27816   | 11126              | 0        |
| Feb-88 | 30990                                      | 30990   | 12396              | 0        |
| Mar-88 | 15873                                      | 15873   | 6349               | 0        |
| Apr-88 | 14134                                      | 14134   | 5654               | 0        |
| May-88 | 43311                                      | 43311   | 17324              | 0        |
| Jun-88 | 7710                                       | 7710  | 3084               | 0        |
| Jul-88 | 75283                                      | 75283   | 30113              | 0        |
| Aug-88 | 13454                                      | 13454   | 5382               | 0        |
| Sep-88 | 12547                                      | 12547   | 5019               | 0        |
| Oct-88 | 18141                                      | 18141   | 7256               | 0        |
| Nov-88 | 57672                                      | 57672   | 23069              | 0        |
| Dec-88 | 7332                                       | 7332  | 2933               | 0        |
| Jan-89 | 14210                                      | 14210   | 5684               | 0        |
| Feb-89 | 20257                                      | 20257   | 8103               | 0        |
| Mar-89 | 33333                                      | 33333   | 13333              | 0        |
| Apr-89 | 24187                                      | 24187   | 9675               | 0        |
| May-89 | 66742                                      | 66742   | 26697              | 0        |
| Jun-89 | 40212                                      | 40212   | 16085              | 0        |
| Jul-89 | 39380                                      | 39380   | 15752              | 0        |
| Aug-89 | 52608                                      | 52608   | 21043              | 0        |
| Sep-89 | 48677                                      | 48677   | 19471              | 0        |
| Oct-89 | 40741                                      | 40741   | 16296              | 0        |
| Nov-89 | 19123                                      | 19123   | 7649               | 0        |
| Dec-89 | 4913                                       | 4913  | 1965               | 0        |

| Month  | Hackensack River CSO<br>Carbon Load (lb) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline                                 | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 174780                                   | 174780  | 69912              | 0        |
| Feb-88 | 194728                                   | 194728  | 77891              | 0        |
| Mar-88 | 99739                                    | 99739   | 39896              | 0        |
| Apr-88 | 88815                                    | 88815   | 35526              | 0        |
| May-88 | 272145                                   | 272145  | 108858             | 0        |
| Jun-88 | 48445                                    | 48445   | 19378              | 0        |
| Jul-88 | 473047                                   | 473047  | 189219             | 0        |
| Aug-88 | 84541                                    | 84541   | 33816              | 0        |
| Sep-88 | 78841                                    | 78841   | 31537              | 0        |
| Oct-88 | 113987                                   | 113987  | 45595              | 0        |
| Nov-88 | 362384                                   | 362384  | 144954             | 0        |
| Dec-88 | 46070                                    | 46070   | 18428              | 0        |
| Jan-89 | 89290                                    | 89290   | 35716              | 0        |
| Feb-89 | 127286                                   | 127286  | 50914              | 0        |
| Mar-89 | 209451                                   | 209451  | 83781              | 0        |
| Apr-89 | 151983                                   | 151983  | 60793              | 0        |
| May-89 | 419378                                   | 419378  | 167751             | 0        |
| Jun-89 | 252672                                   | 252672  | 101069             | 0        |
| Jul-89 | 247447                                   | 247447  | 98979              | 0        |
| Aug-89 | 330563                                   | 330563  | 132225             | 0        |
| Sep-89 | 305866                                   | 305866  | 122346             | 0        |
| Oct-89 | 255996                                   | 255996  | 102398             | 0        |
| Nov-89 | 120162                                   | 120162  | 48065              | 0        |
| Dec-89 | 30872                                    | 30872   | 12349              | 0        |

| Month  | Passaic River Storm Water<br>Nitrogen Load (lb) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 36081   | 33685   | 33685              | 10254    |
| Feb-88 | 40199   | 37530   | 37530              | 11424    |
| Mar-88 | 20590   | 19223   | 19223              | 5851     |
| Apr-88 | 18335   | 17117   | 17117              | 5210     |
| May-88 | 56181   | 52451   | 52450              | 15966    |
| Jun-88 | 10001   | 9337  | 9337               | 2842     |
| Jul-88 | 97655   | 91171   | 91170              | 27752    |
| Aug-88 | 17452   | 16294   | 16293              | 4960     |
| Sep-88 | 16276   | 15195   | 15195              | 4625     |
| Oct-88 | 23531   | 21969   | 21969              | 6687     |
| Nov-88 | 74810   | 69843   | 69842              | 21260    |
| Dec-88 | 9511  | 8879  | 8879               | 2703     |
| Jan-89 | 18433   | 17209   | 17209              | 5238     |
| Feb-89 | 26277   | 24532   | 24532              | 7467     |
| Mar-89 | 43239   | 40368   | 40368              | 12288    |
| Apr-89 | 31375   | 29292   | 29292              | 8916     |
| May-89 | 86576   | 80827   | 80827              | 24604    |
| Jun-89 | 52161   | 48698   | 48697              | 14823    |
| Jul-89 | 51083   | 47691   | 47690              | 14517    |
| Aug-89 | 68241   | 63710   | 63709              | 19393    |
| Sep-89 | 63142   | 58950   | 58949              | 17944    |
| Oct-89 | 52847   | 49338   | 49338              | 15019    |
| Nov-89 | 24806   | 23159   | 23159              | 7050     |
| Dec-89 | 6373  | 5950  | 5950               | 1811     |

| Month  | Passaic River Storm Water<br>Carbon Load (lb) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline                                      | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 327392  | 327392  | 327392             | 67005    |
| Feb-88 | 364757  | 364758  | 364757             | 74653    |
| Mar-88 | 186827  | 186827  | 186827             | 38237    |
| Apr-88 | 166365  | 166365  | 166365             | 34049    |
| May-88 | 509771  | 509771  | 509771             | 104332   |
| Jun-88 | 90745   | 90745   | 90745              | 18572    |
| Jul-88 | 886094  | 886094  | 886094             | 181351   |
| Aug-88 | 158358  | 158358  | 158358             | 32410    |
| Sep-88 | 147682  | 147682  | 147682             | 30225    |
| Oct-88 | 213517  | 213517  | 213516             | 43699    |
| Nov-88 | 678805  | 678805  | 678805             | 138927   |
| Dec-88 | 86296   | 86296   | 86296              | 17662    |
| Jan-89 | 167255  | 167255  | 167255             | 34231    |
| Feb-89 | 238427  | 238427  | 238427             | 48797    |
| Mar-89 | 392337  | 392337  | 392337             | 80297    |
| Apr-89 | 284689  | 284689  | 284689             | 58265    |
| May-89 | 785563  | 785563  | 785563             | 160776   |
| Jun-89 | 473295  | 473295  | 473295             | 96866    |
| Jul-89 | 463509  | 463509  | 463509             | 94864    |
| Aug-89 | 619198  | 619198  | 619198             | 126727   |
| Sep-89 | 572936  | 572936  | 572936             | 117259   |
| Oct-89 | 479523  | 479523  | 479523             | 98141    |
| Nov-89 | 225082  | 225082  | 225082             | 46066    |
| Dec-89 | 57827   | 57827   | 57827              | 11835    |

| Month  | Passaic River CSO<br>Nitrogen Load (lb) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline                                | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 30971                                   | 30971   | 12388              | 0        |
| Feb-88 | 34505                                   | 34505   | 13802              | 0        |
| Mar-88 | 17673                                   | 17673   | 7069               | 0        |
| Apr-88 | 15738                                   | 15738   | 6295               | 0        |
| May-88 | 48223                                   | 48223   | 19289              | 0        |
| Jun-88 | 8584                                    | 8584  | 3434               | 0        |
| Jul-88 | 83822                                   | 83822   | 33529              | 0        |
| Aug-88 | 14980                                   | 14980   | 5992               | 0        |
| Sep-88 | 13970                                   | 13970   | 5588               | 0        |
| Oct-88 | 20198                                   | 20198   | 8079               | 0        |
| Nov-88 | 64213                                   | 64213   | 25685              | 0        |
| Dec-88 | 8163                                    | 8163  | 3265               | 0        |
| Jan-89 | 15822                                   | 15822   | 6329               | 0        |
| Feb-89 | 22555                                   | 22555   | 9022               | 0        |
| Mar-89 | 37114                                   | 37114   | 14846              | 0        |
| Apr-89 | 26931                                   | 26931   | 10772              | 0        |
| May-89 | 74313                                   | 74313   | 29725              | 0        |
| Jun-89 | 44773                                   | 44773   | 17909              | 0        |
| Jul-89 | 43847                                   | 43847   | 17539              | 0        |
| Aug-89 | 58575                                   | 58575   | 23430              | 0        |
| Sep-89 | 54199                                   | 54199   | 21679              | 0        |
| Oct-89 | 45362                                   | 45362   | 18145              | 0        |
| Nov-89 | 21292                                   | 21292   | 8517               | 0        |
| Dec-89 | 5470                                    | 5470  | 2188               | 0        |

| Month  | Passaic River CSO<br>Carbon Load (lb) |   |                    |          |
|--------|---------------------------------------|---|--------------------|----------|
|        | Baseline                              | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 194605                                | 194605  | 77842              | 0        |
| Feb-88 | 216816                                | 216816  | 86726              | 0        |
| Mar-88 | 111052                                | 111052  | 44421              | 0        |
| Apr-88 | 98889                                 | 98889   | 39556              | 0        |
| May-88 | 303013                                | 303013  | 121205             | 0        |
| Jun-88 | 53939                                 | 53939   | 21576              | 0        |
| Jul-88 | 526704                                | 526704  | 210681             | 0        |
| Aug-88 | 94130                                 | 94130   | 37652              | 0        |
| Sep-88 | 87784                                 | 87784   | 35114              | 0        |
| Oct-88 | 126916                                | 126916  | 50767              | 0        |
| Nov-88 | 403489                                | 403489  | 161395             | 0        |
| Dec-88 | 51295                                 | 51295   | 20518              | 0        |
| Jan-89 | 99418                                 | 99418   | 39767              | 0        |
| Feb-89 | 141723                                | 141723  | 56689              | 0        |
| Mar-89 | 233209                                | 233209  | 93284              | 0        |
| Apr-89 | 169222                                | 169222  | 67689              | 0        |
| May-89 | 466947                                | 466947  | 186779             | 0        |
| Jun-89 | 281332                                | 281332  | 112533             | 0        |
| Jul-89 | 275515                                | 275515  | 110206             | 0        |
| Aug-89 | 368058                                | 368058  | 147223             | 0        |
| Sep-89 | 340559                                | 340559  | 136224             | 0        |
| Oct-89 | 285033                                | 285033  | 114013             | 0        |
| Nov-89 | 133791                                | 133791  | 53517              | 0        |
| Dec-89 | 34373                                 | 34373   | 13749              | 0        |

| Month  | Newark Bay Storm Water<br>Nitrogen Load (lb) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline                                     | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 9759   | 9111  | 9111               | 2773     |
| Feb-88 | 10873  | 10151   | 10151              | 3090     |
| Mar-88 | 5569   | 5199  | 5199               | 1583     |
| Apr-88 | 4959   | 4630  | 4630               | 1409     |
| May-88 | 15195  | 14186   | 14186              | 4318     |
| Jun-88 | 2705   | 2525  | 2525               | 769      |
| Jul-88 | 26413  | 24659   | 24659              | 7506     |
| Aug-88 | 4720   | 4407  | 4407               | 1341     |
| Sep-88 | 4402   | 4110  | 4110               | 1251     |
| Oct-88 | 6364   | 5942  | 5942               | 1809     |
| Nov-88 | 20234  | 18890   | 18890              | 5750     |
| Dec-88 | 2572   | 2402  | 2401               | 731      |
| Jan-89 | 4985   | 4654  | 4654               | 1417     |
| Feb-89 | 7107   | 6635  | 6635               | 2020     |
| Mar-89 | 11695  | 10918   | 10918              | 3324     |
| Apr-89 | 8486   | 7923  | 7923               | 2412     |
| May-89 | 23416  | 21861   | 21861              | 6655     |
| Jun-89 | 14108  | 13171   | 13171              | 4009     |
| Jul-89 | 13816  | 12899   | 12899              | 3926     |
| Aug-89 | 18457  | 17231   | 17231              | 5245     |
| Sep-89 | 17078  | 15944   | 15944              | 4853     |
| Oct-89 | 14294  | 13344   | 13344              | 4062     |
| Nov-89 | 6709   | 6264  | 6264               | 1907     |
| Dec-89 | 1724   | 1609  | 1609               | 490      |



| Month  | Newark Bay Storm Water<br>Carbon Load (lb) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline                                   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 88549                                      | 88549   | 88549              | 18123    |
| Feb-88 | 98655                                      | 98655   | 98655              | 20191    |
| Mar-88 | 50531                                      | 50531   | 50531              | 10342    |
| Apr-88 | 44996                                      | 44996   | 44996              | 9209     |
| May-88 | 137877                                     | 137877  | 137877             | 28218    |
| Jun-88 | 24544                                      | 24544   | 24543              | 5023     |
| Jul-88 | 239660                                     | 239660  | 239660             | 49050    |
| Aug-88 | 42831                                      | 42831   | 42831              | 8766     |
| Sep-88 | 39943                                      | 39943   | 39943              | 8175     |
| Oct-88 | 57749                                      | 57749   | 57749              | 11819    |
| Nov-88 | 183595                                     | 183595  | 183595             | 37575    |
| Dec-88 | 23340                                      | 23340   | 23340              | 4777     |
| Jan-89 | 45237                                      | 45237   | 45237              | 9258     |
| Feb-89 | 64487                                      | 64487   | 64487              | 13198    |
| Mar-89 | 106115                                     | 106115  | 106115             | 21718    |
| Apr-89 | 76999                                      | 76999   | 76999              | 15759    |
| May-89 | 212470                                     | 212470  | 212470             | 43485    |
| Jun-89 | 128011                                     | 128011  | 128011             | 26199    |
| Jul-89 | 125364                                     | 125364  | 125364             | 25657    |
| Aug-89 | 167473                                     | 167473  | 167473             | 34276    |
| Sep-89 | 154961                                     | 154961  | 154961             | 31715    |
| Oct-89 | 129696                                     | 129696  | 129696             | 26544    |
| Nov-89 | 60877                                      | 60877   | 60878              | 12459    |
| Dec-89 | 15640                                      | 15640   | 15640              | 3201     |

| Month  | Newark Bay CSO<br>Nitrogen Load (lb) |   |                    |          |
|--------|--------------------------------------|---|--------------------|----------|
|        |                                      | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
|        | Baseline                             |   |                    |          |
| Jan-88 | 10040                                | 10040   | 4016               | 0        |
| Feb-88 | 11186                                | 11186   | 4474               | 0        |
| Mar-88 | 5729                                 | 5729  | 2292               | 0        |
| Apr-88 | 5102                                 | 5102  | 2041               | 0        |
| May-88 | 15633                                | 15633   | 6253               | 0        |
| Jun-88 | 2783                                 | 2783  | 1113               | 0        |
| Jul-88 | 27173                                | 27173   | 10869              | 0        |
| Aug-88 | 4856                                 | 4856  | 1942               | 0        |
| Sep-88 | 4529                                 | 4529  | 1812               | 0        |
| Oct-88 | 6548                                 | 6548  | 2619               | 0        |
| Nov-88 | 20816                                | 20816   | 8327               | 0        |
| Dec-88 | 2646                                 | 2646  | 1059               | 0        |
| Jan-89 | 5129                                 | 5129  | 2052               | 0        |
| Feb-89 | 7312                                 | 7312  | 2925               | 0        |
| Mar-89 | 12032                                | 12032   | 4813               | 0        |
| Apr-89 | 8730                                 | 8730  | 3492               | 0        |
| May-89 | 24090                                | 24090   | 9636               | 0        |
| Jun-89 | 14514                                | 14514   | 5806               | 0        |
| Jul-89 | 14214                                | 14214   | 5686               | 0        |
| Aug-89 | 18989                                | 18989   | 7595               | 0        |
| Sep-89 | 17570                                | 17570   | 7028               | 0        |
| Oct-89 | 14705                                | 14705   | 5882               | 0        |
| Nov-89 | 6902                                 | 6902  | 2761               | 0        |
| Dec-89 | 1773                                 | 1773  | 709                | 0        |

| Month  | Newark Bay CSO<br>Carbon Load (lb) |   |                    |          |
|--------|------------------------------------|---|--------------------|----------|
|        | Baseline                           | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 63086                              | 63086   | 25235              | 0        |
| Feb-88 | 70286                              | 70286   | 28115              | 0        |
| Mar-88 | 36000                              | 36000   | 14400              | 0        |
| Apr-88 | 32057                              | 32057   | 12823              | 0        |
| May-88 | 98229                              | 98229   | 39292              | 0        |
| Jun-88 | 17486                              | 17486   | 6994               | 0        |
| Jul-88 | 170744                             | 170744  | 68298              | 0        |
| Aug-88 | 30515                              | 30515   | 12206              | 0        |
| Sep-88 | 28457                              | 28457   | 11383              | 0        |
| Oct-88 | 41143                              | 41143   | 16457              | 0        |
| Nov-88 | 130801                             | 130801  | 52320              | 0        |
| Dec-88 | 16629                              | 16629   | 6652               | 0        |
| Jan-89 | 32229                              | 32229   | 12891              | 0        |
| Feb-89 | 45943                              | 45943   | 18377              | 0        |
| Mar-89 | 75601                              | 75601   | 30240              | 0        |
| Apr-89 | 54858                              | 54858   | 21943              | 0        |
| May-89 | 151373                             | 151373  | 60549              | 0        |
| Jun-89 | 91201                              | 91201   | 36480              | 0        |
| Jul-89 | 89315                              | 89315   | 35726              | 0        |
| Aug-89 | 119315                             | 119315  | 47726              | 0        |
| Sep-89 | 110401                             | 110401  | 44160              | 0        |
| Oct-89 | 92401                              | 92401   | 36960              | 0        |
| Nov-89 | 43372                              | 43372   | 17349              | 0        |
| Dec-89 | 11143                              | 11143   | 4457               | 0        |

| Month  | Arthur Kill and Kill Van Kull Storm Water<br>Nitrogen Load (lb) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 48728   | 45493                             | 45493              | 13850    |
| Feb-88 | 54290   | 50685                             | 50685              | 15457    |
| Mar-88 | 27807   | 25961                             | 25961              | 7909     |
| Apr-88 | 24761   | 23117                             | 23117              | 7057     |
| May-88 | 75874   | 70836                             | 70835              | 21628    |
| Jun-88 | 13506   | 12609                             | 12609              | 3838     |
| Jul-88 | 131885  | 123128                            | 123127             | 37751    |
| Aug-88 | 23570   | 22005                             | 22005              | 6731     |
| Sep-88 | 21981   | 20521                             | 20521              | 6250     |
| Oct-88 | 31780   | 29669                             | 29669              | 9031     |
| Nov-88 | 101033  | 94324                             | 94323              | 28819    |
| Dec-88 | 12844   | 11991                             | 11991              | 3650     |
| Jan-89 | 24894   | 23241                             | 23241              | 7078     |
| Feb-89 | 35487   | 33130                             | 33130              | 10091    |
| Mar-89 | 58395   | 54518                             | 54517              | 16610    |
| Apr-89 | 42372   | 39559                             | 39559              | 12042    |
| May-89 | 116922  | 109158                            | 109158             | 33302    |
| Jun-89 | 70444   | 65767                             | 65767              | 20096    |
| Jul-89 | 68988   | 64407                             | 64407              | 19716    |
| Aug-89 | 92161   | 86041                             | 86041              | 26314    |
| Sep-89 | 85275   | 79613                             | 79612              | 24329    |
| Oct-89 | 71371   | 66632                             | 66632              | 20322    |
| Nov-89 | 33501   | 31276                             | 31276              | 9523     |
| Dec-89 | 8607  | 8035                              | 8035               | 2446     |

| Month  | Arthur Kill and Kill Van Kull Storm Water<br>Carbon Load (lb) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 442147  | 442147  | 442147             | 90506    |
| Feb-88 | 492613  | 492613  | 492613             | 101008   |
| Mar-88 | 252313  | 252313  | 252313             | 51682    |
| Apr-88 | 224677  | 224677  | 224678             | 46119    |
| May-88 | 688455  | 688455  | 688455             | 141334   |
| Jun-88 | 122551  | 122551  | 122551             | 25082    |
| Jul-88 | 1196688   | 1196688   | 1196688            | 246687   |
| Aug-88 | 213866  | 213866  | 213866             | 43987    |
| Sep-88 | 199448  | 199448  | 199448             | 40843    |
| Oct-88 | 288359  | 288359  | 288359             | 59017    |
| Nov-88 | 916741  | 916741  | 916741             | 188321   |
| Dec-88 | 116545  | 116545  | 116545             | 23852    |
| Jan-89 | 225879  | 225879  | 225879             | 46250    |
| Feb-89 | 321998  | 321998  | 321998             | 65944    |
| Mar-89 | 529858  | 529858  | 529858             | 108543   |
| Apr-89 | 384475  | 384475  | 384475             | 78688    |
| May-89 | 1060918   | 1060918   | 1060918            | 217620   |
| Jun-89 | 639194  | 639194  | 639194             | 131321   |
| Jul-89 | 625980  | 625980  | 625980             | 128838   |
| Aug-89 | 836240  | 836240  | 836240             | 171954   |
| Sep-89 | 773761  | 773761  | 773761             | 158980   |
| Oct-89 | 647604  | 647604  | 647604             | 132797   |
| Nov-89 | 303977  | 303977  | 303977             | 62228    |
| Dec-89 | 78096   | 78096   | 78096              | 15983    |

| Month  | Arthur Kill and Kill Van Kull CSO<br>Nitrogen Load (lb) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        |   | Baseline<br>+ CAIR<br>+ LISS TMDL |                    |          |
|        | Baseline  | + JB Consent Order                | HydroQual Scenario | Pastoral |
| Jan-88 | 37149   | 37149                             | 14860              | 0        |
| Feb-88 | 42010   | 42010                             | 16804              | 0        |
| Mar-88 | 21338   | 21338                             | 8535               | 0        |
| Apr-88 | 19359   | 19359                             | 7744               | 0        |
| May-88 | 59335   | 59335                             | 23734              | 0        |
| Jun-88 | 10279   | 10279                             | 4112               | 0        |
| Jul-88 | 106586  | 106586                            | 42634              | 0        |
| Aug-88 | 18678   | 18678                             | 7471               | 0        |
| Sep-88 | 16819   | 16819                             | 6728               | 0        |
| Oct-88 | 24187   | 24187                             | 9675               | 0        |
| Nov-88 | 79496   | 79496                             | 31799              | 0        |
| Dec-88 | 9775  | 9775                              | 3910               | 0        |
| Jan-89 | 19027   | 19027                             | 7611               | 0        |
| Feb-89 | 27173   | 27173                             | 10869              | 0        |
| Mar-89 | 44841   | 44841                             | 17936              | 0        |
| Apr-89 | 32249   | 32249                             | 12900              | 0        |
| May-89 | 90710   | 90710                             | 36284              | 0        |
| Jun-89 | 55471   | 55471                             | 22188              | 0        |
| Jul-89 | 54989   | 54989                             | 21996              | 0        |
| Aug-89 | 73090   | 73090                             | 29236              | 0        |
| Sep-89 | 67208   | 67208                             | 26883              | 0        |
| Oct-89 | 55273   | 55273                             | 22109              | 0        |
| Nov-89 | 25557   | 25557                             | 10223              | 0        |
| Dec-89 | 6551  | 6551                              | 2620               | 0        |

| Month  | Arthur Kill and Kill Van Kull CSO<br>Carbon Load (lb) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 233429  | 233429  | 93372              | 0        |
| Feb-88 | 263969  | 263969  | 105588             | 0        |
| Mar-88 | 134079  | 134079  | 53632              | 0        |
| Apr-88 | 121646  | 121646  | 48658              | 0        |
| May-88 | 372836  | 372836  | 149134             | 0        |
| Jun-88 | 64590   | 64590   | 25836              | 0        |
| Jul-88 | 669737  | 669737  | 267895             | 0        |
| Aug-88 | 117366  | 117366  | 46947              | 0        |
| Sep-88 | 105684  | 105684  | 42274              | 0        |
| Oct-88 | 151977  | 151977  | 60791              | 0        |
| Nov-88 | 499518  | 499518  | 199807             | 0        |
| Dec-88 | 61424   | 61424   | 24570              | 0        |
| Jan-89 | 119558  | 119558  | 47823              | 0        |
| Feb-89 | 170744  | 170744  | 68298              | 0        |
| Mar-89 | 281762  | 281762  | 112705             | 0        |
| Apr-89 | 202636  | 202636  | 81055              | 0        |
| May-89 | 569982  | 569982  | 227993             | 0        |
| Jun-89 | 348556  | 348556  | 139422             | 0        |
| Jul-89 | 345525  | 345525  | 138210             | 0        |
| Aug-89 | 459267  | 459267  | 183707             | 0        |
| Sep-89 | 422304  | 422304  | 168921             | 0        |
| Oct-89 | 347313  | 347313  | 138925             | 0        |
| Nov-89 | 160586  | 160586  | 64235              | 0        |
| Dec-89 | 41160   | 41160   | 16464              | 0        |

| Month  | Raritan River and Raritan Bay Storm Water<br>Nitrogen Load (lb) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 55811   | 52105                             | 52105              | 15861    |
| Feb-88 | 62182   | 58053                             | 58053              | 17671    |
| Mar-88 | 31850   | 29734                             | 29734              | 9051     |
| Apr-88 | 28361   | 26478                             | 26478              | 8060     |
| May-88 | 86903   | 81133                             | 81132              | 24697    |
| Jun-88 | 15470   | 14442                             | 14442              | 4397     |
| Jul-88 | 151054  | 141024                            | 141023             | 42928    |
| Aug-88 | 26996   | 25204                             | 25203              | 7672     |
| Sep-88 | 25176   | 23504                             | 23504              | 7154     |
| Oct-88 | 36399   | 33982                             | 33982              | 10344    |
| Nov-88 | 115718  | 108034                            | 108034             | 32886    |
| Dec-88 | 14712   | 13735                             | 13735              | 4181     |
| Jan-89 | 28513   | 26620                             | 26619              | 8103     |
| Feb-89 | 40646   | 37947                             | 37947              | 11551    |
| Mar-89 | 66883   | 62442                             | 62442              | 19007    |
| Apr-89 | 48533   | 45310                             | 45310              | 13792    |
| May-89 | 133917  | 125025                            | 125025             | 38057    |
| Jun-89 | 80685   | 75327                             | 75327              | 22930    |
| Jul-89 | 79015   | 73768                             | 73768              | 22455    |
| Aug-89 | 105556  | 98547                             | 98547              | 29998    |
| Sep-89 | 97670   | 91184                             | 91184              | 27756    |
| Oct-89 | 81746   | 76318                             | 76318              | 23231    |
| Nov-89 | 38371   | 35823                             | 35823              | 10905    |
| Dec-89 | 9859  | 9204                              | 9204               | 2802     |



| Month  | Raritan River and Raritan Bay Storm Water<br>Carbon Load (lb) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 506418  | 506418  | 506418             | 103646   |
| Feb-88 | 564225  | 564225  | 564225             | 115477   |
| Mar-88 | 288992  | 288992  | 288992             | 59146    |
| Apr-88 | 257342  | 257342  | 257342             | 52669    |
| May-88 | 788531  | 788531  | 788531             | 161384   |
| Jun-88 | 140365  | 140365  | 140365             | 28728    |
| Jul-88 | 1370625   | 1370625   | 1370625            | 280517   |
| Aug-88 | 244954  | 244954  | 244954             | 50133    |
| Sep-88 | 228437  | 228437  | 228437             | 46753    |
| Oct-88 | 330274  | 330274  | 330274             | 67595    |
| Nov-88 | 1049993   | 1049993   | 1049993            | 214896   |
| Dec-88 | 133487  | 133487  | 133487             | 27320    |
| Jan-89 | 258716  | 258716  | 258716             | 52950    |
| Feb-89 | 368813  | 368813  | 368813             | 75483    |
| Mar-89 | 606875  | 606875  | 606875             | 124206   |
| Apr-89 | 440372  | 440372  | 440372             | 90128    |
| May-89 | 1215127   | 1215127   | 1215127            | 248693   |
| Jun-89 | 732108  | 732108  | 732108             | 149836   |
| Jul-89 | 716959  | 716959  | 716959             | 146736   |
| Aug-89 | 957786  | 957786  | 957786             | 196024   |
| Sep-89 | 886226  | 886226  | 886226             | 181378   |
| Oct-89 | 741737  | 741737  | 741737             | 151807   |
| Nov-89 | 348166  | 348166  | 348166             | 71257    |
| Dec-89 | 89452   | 89452   | 89452              | 18308    |

| Month  | Raritan River and Raritan Bay CSO<br>Nitrogen Load (lb) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 8667  | 8667                              | 3467               | 0        |
| Feb-88 | 9656  | 9656                              | 3862               | 0        |
| Mar-88 | 4946  | 4946                              | 1978               | 0        |
| Apr-88 | 4404  | 4404                              | 1762               | 0        |
| May-88 | 13495   | 13495                             | 5398               | 0        |
| Jun-88 | 2402  | 2402                              | 961                | 0        |
| Jul-88 | 23457   | 23457                             | 9383               | 0        |
| Aug-88 | 4192  | 4192                              | 1677               | 0        |
| Sep-88 | 3910  | 3910                              | 1564               | 0        |
| Oct-88 | 5652  | 5652                              | 2261               | 0        |
| Nov-88 | 17970   | 17970                             | 7188               | 0        |
| Dec-88 | 2284  | 2284                              | 914                | 0        |
| Jan-89 | 4428  | 4428                              | 1771               | 0        |
| Feb-89 | 6312  | 6312                              | 2525               | 0        |
| Mar-89 | 10386   | 10386                             | 4154               | 0        |
| Apr-89 | 7536  | 7536                              | 3015               | 0        |
| May-89 | 20796   | 20796                             | 8318               | 0        |
| Jun-89 | 12529   | 12529                             | 5012               | 0        |
| Jul-89 | 12270   | 12270                             | 4908               | 0        |
| Aug-89 | 16392   | 16392                             | 6557               | 0        |
| Sep-89 | 15167   | 15167                             | 6067               | 0        |
| Oct-89 | 12694   | 12694                             | 5078               | 0        |
| Nov-89 | 5959  | 5959                              | 2383               | 0        |
| Dec-89 | 1531  | 1531                              | 612                | 0        |

| Month  | Raritan River and Raritan Bay CSO<br>Carbon Load (lb) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 54459   | 54459   | 21784              | 0        |
| Feb-88 | 60675   | 60675   | 24270              | 0        |
| Mar-88 | 31077   | 31077   | 12431              | 0        |
| Apr-88 | 27674   | 27674   | 11069              | 0        |
| May-88 | 84796   | 84796   | 33919              | 0        |
| Jun-88 | 15095   | 15095   | 6038               | 0        |
| Jul-88 | 147395  | 147395  | 58958              | 0        |
| Aug-88 | 26342   | 26342   | 10537              | 0        |
| Sep-88 | 24566   | 24566   | 9826               | 0        |
| Oct-88 | 35517   | 35517   | 14207              | 0        |
| Nov-88 | 112914  | 112914  | 45166              | 0        |
| Dec-88 | 14355   | 14355   | 5742               | 0        |
| Jan-89 | 27822   | 27822   | 11129              | 0        |
| Feb-89 | 39661   | 39661   | 15864              | 0        |
| Mar-89 | 65262   | 65262   | 26105              | 0        |
| Apr-89 | 47356   | 47356   | 18942              | 0        |
| May-89 | 130672  | 130672  | 52269              | 0        |
| Jun-89 | 78729   | 78729   | 31492              | 0        |
| Jul-89 | 77101   | 77101   | 30840              | 0        |
| Aug-89 | 102999  | 102999  | 41200              | 0        |
| Sep-89 | 95304   | 95304   | 38121              | 0        |
| Oct-89 | 79765   | 79765   | 31906              | 0        |
| Nov-89 | 37441   | 37441   | 14976              | 0        |
| Dec-89 | 9619  | 9619  | 3848               | 0        |

| Month  | Hudson River Below Tappan Zee and Upper Bay Storm Water Nitrogen Load (lb) |  |                    |          |
|--------|--|--|--------------------|----------|
|        | Baseline   | Baseline + CAIR + LISS TMDL + JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 16788  | 15673  | 15673              | 5398     |
| Feb-88 | 18643  | 17405  | 17405              | 6306     |
| Mar-88 | 9563   | 8928   | 8928               | 3222     |
| Apr-88 | 8647   | 8073   | 8073               | 2959     |
| May-88 | 25835  | 24119  | 24119              | 8775     |
| Jun-88 | 4764   | 4447   | 4447               | 1566     |
| Jul-88 | 44620  | 41657  | 41656              | 15650    |
| Aug-88 | 8274   | 7724   | 7724               | 3107     |
| Sep-88 | 7902   | 7377   | 7377               | 3062     |
| Oct-88 | 11472  | 10710  | 10710              | 4526     |
| Nov-88 | 35347  | 33000  | 32999              | 13345    |
| Dec-88 | 4474   | 4177   | 4177               | 1486     |
| Jan-89 | 8754   | 8172   | 8172               | 2956     |
| Feb-89 | 12388  | 11565  | 11565              | 4123     |
| Mar-89 | 20304  | 18956  | 18956              | 7142     |
| Apr-89 | 15041  | 14042  | 14042              | 5207     |
| May-89 | 40958  | 38238  | 38238              | 15022    |
| Jun-89 | 25651  | 23948  | 23948              | 10692    |
| Jul-89 | 23643  | 22073  | 22072              | 8558     |
| Aug-89 | 32325  | 30179  | 30179              | 12641    |
| Sep-89 | 29507  | 27547  | 27547              | 11149    |
| Oct-89 | 25435  | 23746  | 23746              | 9751     |
| Nov-89 | 11651  | 10877  | 10877              | 3744     |
| Dec-89 | 3010   | 2810   | 2810               | 988      |

| Month  | Hudson River Below Tappan Zee and Upper Bay Storm Water Carbon Load (lb) |  |                    |          |
|--------|--|--|--------------------|----------|
|        | Baseline   | Baseline + CAIR + LISS TMDL + JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 152329   | 152329   | 152329             | 35278    |
| Feb-88 | 169157   | 169157   | 169157             | 41208    |
| Mar-88 | 86777  | 86777  | 86777              | 21056    |
| Apr-88 | 78462  | 78462  | 78461              | 19335    |
| May-88 | 234417   | 234417   | 234417             | 57340    |
| Jun-88 | 43223  | 43223  | 43223              | 10231    |
| Jul-88 | 404865   | 404865   | 404865             | 102266   |
| Aug-88 | 75075  | 75075  | 75075              | 20302    |
| Sep-88 | 71698  | 71698  | 71698              | 20009    |
| Oct-88 | 104095   | 104095   | 104095             | 29574    |
| Nov-88 | 320725   | 320725   | 320725             | 87203    |
| Dec-88 | 40599  | 40599  | 40599              | 9709     |
| Jan-89 | 79429  | 79429  | 79429              | 19316    |
| Feb-89 | 112407   | 112407   | 112406             | 26939    |
| Mar-89 | 184235   | 184235   | 184235             | 46673    |
| Apr-89 | 136479   | 136479   | 136479             | 34025    |
| May-89 | 371636   | 371636   | 371636             | 98165    |
| Jun-89 | 232754   | 232754   | 232754             | 69870    |
| Jul-89 | 214524   | 214524   | 214524             | 55927    |
| Aug-89 | 293310   | 293310   | 293310             | 82607    |
| Sep-89 | 267737   | 267737   | 267737             | 72854    |
| Oct-89 | 230790   | 230790   | 230790             | 63720    |
| Nov-89 | 105716   | 105716   | 105717             | 24465    |
| Dec-89 | 27308  | 27308  | 27308              | 6456     |

| Month  | Hudson River Below Tappan Zee and Upper Bay CSO<br>Nitrogen Load (lb) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 67358   | 67358                             | 26943              | 0        |
| Feb-88 | 80088   | 80088                             | 32035              | 0        |
| Mar-88 | 41778   | 41778                             | 16711              | 0        |
| Apr-88 | 38865   | 38865                             | 15546              | 0        |
| May-88 | 113814  | 113814                            | 45526              | 0        |
| Jun-88 | 19941   | 19941                             | 7976               | 0        |
| Jul-88 | 202697  | 202697                            | 81079              | 0        |
| Aug-88 | 41077   | 41077                             | 16431              | 0        |
| Sep-88 | 42028   | 42028                             | 16811              | 0        |
| Oct-88 | 63634   | 63634                             | 25453              | 0        |
| Nov-88 | 181475  | 181475                            | 72590              | 0        |
| Dec-88 | 19949   | 19949                             | 7980               | 0        |
| Jan-89 | 38795   | 38795                             | 15518              | 0        |
| Feb-89 | 51957   | 51957                             | 20783              | 0        |
| Mar-89 | 95079   | 95079                             | 38031              | 0        |
| Apr-89 | 69919   | 69919                             | 27967              | 0        |
| May-89 | 201842  | 201842                            | 80737              | 0        |
| Jun-89 | 149807  | 149807                            | 59923              | 0        |
| Jul-89 | 113975  | 113975                            | 45590              | 0        |
| Aug-89 | 170227  | 170227                            | 68091              | 0        |
| Sep-89 | 151531  | 151531                            | 60612              | 0        |
| Oct-89 | 134721  | 134721                            | 53888              | 0        |
| Nov-89 | 46688   | 46688                             | 18675              | 0        |
| Dec-89 | 12789   | 12789                             | 5116               | 0        |

| Month  | Hudson River Below Tappan Zee and Upper Bay CSO<br>Carbon Load (lb) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 423248  | 423248                            | 169299             | 0        |
| Feb-88 | 503239  | 503239                            | 201296             | 0        |
| Mar-88 | 262515  | 262515                            | 105006             | 0        |
| Apr-88 | 244208  | 244208                            | 97683              | 0        |
| May-88 | 715157  | 715157                            | 286063             | 0        |
| Jun-88 | 125298  | 125298                            | 50119              | 0        |
| Jul-88 | 1273660   | 1273660                           | 509464             | 0        |
| Aug-88 | 258110  | 258110                            | 103244             | 0        |
| Sep-88 | 264087  | 264087                            | 105635             | 0        |
| Oct-88 | 399846  | 399846                            | 159938             | 0        |
| Nov-88 | 1140306   | 1140306                           | 456122             | 0        |
| Dec-88 | 125350  | 125350                            | 50140              | 0        |
| Jan-89 | 243768  | 243768                            | 97507              | 0        |
| Feb-89 | 326475  | 326475                            | 130590             | 0        |
| Mar-89 | 597433  | 597433                            | 238973             | 0        |
| Apr-89 | 439338  | 439338                            | 175735             | 0        |
| May-89 | 1268284   | 1268284                           | 507314             | 0        |
| Jun-89 | 941320  | 941320                            | 376528             | 0        |
| Jul-89 | 716166  | 716166                            | 286466             | 0        |
| Aug-89 | 1069629   | 1069629                           | 427852             | 0        |
| Sep-89 | 952153  | 952153                            | 380861             | 0        |
| Oct-89 | 846526  | 846526                            | 338610             | 0        |
| Nov-89 | 293364  | 293364                            | 117346             | 0        |
| Dec-89 | 80360   | 80360                             | 32144              | 0        |

| Month  | North Bergen Central<br>Total Nitrogen Load (lb/d) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 668  | 668   | 267                | 0        |
| Feb-88 | 732  | 732   | 293                | 0        |
| Mar-88 | 706  | 706   | 282                | 0        |
| Apr-88 | 696  | 696   | 278                | 0        |
| May-88 | 733  | 733   | 293                | 0        |
| Jun-88 | 786  | 786   | 315                | 0        |
| Jul-88 | 851  | 851   | 341                | 0        |
| Aug-88 | 770  | 770   | 308                | 0        |
| Sep-88 | 804  | 804   | 322                | 0        |
| Oct-88 | 744  | 744   | 297                | 0        |
| Nov-88 | 637  | 637   | 255                | 0        |
| Dec-88 | 770  | 770   | 308                | 0        |
| Jan-89 | 669  | 669   | 267                | 0        |
| Feb-89 | 732  | 732   | 293                | 0        |
| Mar-89 | 706  | 706   | 282                | 0        |
| Apr-89 | 696  | 696   | 278                | 0        |
| May-89 | 733  | 733   | 293                | 0        |
| Jun-89 | 786  | 786   | 315                | 0        |
| Jul-89 | 851  | 851   | 341                | 0        |
| Aug-89 | 770  | 770   | 308                | 0        |
| Sep-89 | 804  | 804   | 322                | 0        |
| Oct-89 | 744  | 744   | 297                | 0        |
| Nov-89 | 637  | 637   | 255                | 0        |
| Dec-89 | 770  | 770   | 308                | 0        |



| Month  | North Bergen Central<br>Total Organic Carbon Load (lb/d) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 2491   | 2491  | 996                | 0        |
| Feb-88 | 3489   | 3489  | 1395               | 0        |
| Mar-88 | 2638   | 2638  | 1056               | 0        |
| Apr-88 | 2566   | 2566  | 1026               | 0        |
| May-88 | 2553   | 2553  | 1021               | 0        |
| Jun-88 | 2363   | 2363  | 945                | 0        |
| Jul-88 | 1465   | 1465  | 586                | 0        |
| Aug-88 | 2378   | 2378  | 951                | 0        |
| Sep-88 | 1702   | 1702  | 681                | 0        |
| Oct-88 | 2648   | 2648  | 1059               | 0        |
| Nov-88 | 2402   | 2402  | 961                | 0        |
| Dec-88 | 2258   | 2258  | 903                | 0        |
| Jan-89 | 2495   | 2495  | 998                | 0        |
| Feb-89 | 3489   | 3489  | 1395               | 0        |
| Mar-89 | 2638   | 2638  | 1056               | 0        |
| Apr-89 | 2566   | 2566  | 1026               | 0        |
| May-89 | 2553   | 2553  | 1021               | 0        |
| Jun-89 | 2363   | 2363  | 945                | 0        |
| Jul-89 | 1465   | 1465  | 586                | 0        |
| Aug-89 | 2378   | 2378  | 951                | 0        |
| Sep-89 | 1702   | 1702  | 681                | 0        |
| Oct-89 | 2648   | 2648  | 1059               | 0        |
| Nov-89 | 2402   | 2402  | 961                | 0        |
| Dec-89 | 2258   | 2258  | 903                | 0        |

| Month  | Secaucus<br>Total Nitrogen Load (lb/d) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline                               | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 696                                    | 696   | 278                | 0        |
| Feb-88 | 793                                    | 793   | 317                | 0        |
| Mar-88 | 597                                    | 597   | 239                | 0        |
| Apr-88 | 543                                    | 543   | 217                | 0        |
| May-88 | 546                                    | 546   | 219                | 0        |
| Jun-88 | 800                                    | 800   | 320                | 0        |
| Jul-88 | 487                                    | 487   | 195                | 0        |
| Aug-88 | 546                                    | 546   | 218                | 0        |
| Sep-88 | 693                                    | 693   | 277                | 0        |
| Oct-88 | 873                                    | 873   | 349                | 0        |
| Nov-88 | 615                                    | 615   | 246                | 0        |
| Dec-88 | 385                                    | 385   | 154                | 0        |
| Jan-89 | 697                                    | 697   | 279                | 0        |
| Feb-89 | 793                                    | 793   | 317                | 0        |
| Mar-89 | 597                                    | 597   | 239                | 0        |
| Apr-89 | 543                                    | 543   | 217                | 0        |
| May-89 | 546                                    | 546   | 219                | 0        |
| Jun-89 | 800                                    | 800   | 320                | 0        |
| Jul-89 | 487                                    | 487   | 195                | 0        |
| Aug-89 | 546                                    | 546   | 218                | 0        |
| Sep-89 | 693                                    | 693   | 277                | 0        |
| Oct-89 | 873                                    | 873   | 349                | 0        |
| Nov-89 | 615                                    | 615   | 246                | 0        |
| Dec-89 | 385                                    | 385   | 154                | 0        |

| Month  | Secaucus<br>Total Organic Carbon Load (lb/d) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline                                     | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 569  | 569   | 227                | 0        |
| Feb-88 | 713  | 713   | 286                | 0        |
| Mar-88 | 563  | 563   | 225                | 0        |
| Apr-88 | 876  | 876   | 350                | 0        |
| May-88 | 560  | 560   | 224                | 0        |
| Jun-88 | 410  | 410   | 164                | 0        |
| Jul-88 | 488  | 488   | 195                | 0        |
| Aug-88 | 537  | 537   | 215                | 0        |
| Sep-88 | 531  | 531   | 212                | 0        |
| Oct-88 | 500  | 500   | 200                | 0        |
| Nov-88 | 461  | 461   | 185                | 0        |
| Dec-88 | 604  | 604   | 242                | 0        |
| Jan-89 | 570  | 570   | 228                | 0        |
| Feb-89 | 713  | 713   | 286                | 0        |
| Mar-89 | 563  | 563   | 225                | 0        |
| Apr-89 | 876  | 876   | 350                | 0        |
| May-89 | 560  | 560   | 224                | 0        |
| Jun-89 | 410  | 410   | 164                | 0        |
| Jul-89 | 488  | 488   | 195                | 0        |
| Aug-89 | 537  | 537   | 215                | 0        |
| Sep-89 | 531  | 531   | 212                | 0        |
| Oct-89 | 500  | 500   | 200                | 0        |
| Nov-89 | 461  | 461   | 185                | 0        |
| Dec-89 | 604  | 604   | 242                | 0        |

| Month  | Bergen County<br>Total Nitrogen Load (lb/d) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline                                    | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 12904                                       | 12904   | 5170               | 0        |
| Feb-88 | 13023                                       | 13023   | 5227               | 0        |
| Mar-88 | 12718                                       | 12718   | 5087               | 0        |
| Apr-88 | 12445                                       | 12445   | 4978               | 0        |
| May-88 | 12024                                       | 12024   | 4818               | 0        |
| Jun-88 | 13351                                       | 13351   | 5323               | 0        |
| Jul-88 | 13234                                       | 13234   | 5303               | 0        |
| Aug-88 | 11206                                       | 11206   | 4482               | 0        |
| Sep-88 | 11332                                       | 11332   | 4533               | 0        |
| Oct-88 | 9551  | 9551  | 3820               | 0        |
| Nov-88 | 12219                                       | 12219   | 4897               | 0        |
| Dec-88 | 12418                                       | 12418   | 4967               | 0        |
| Jan-89 | 12921                                       | 12921   | 5177               | 0        |
| Feb-89 | 13023                                       | 13023   | 5227               | 0        |
| Mar-89 | 12718                                       | 12718   | 5087               | 0        |
| Apr-89 | 12445                                       | 12445   | 4978               | 0        |
| May-89 | 12024                                       | 12024   | 4818               | 0        |
| Jun-89 | 13351                                       | 13351   | 5323               | 0        |
| Jul-89 | 13234                                       | 13234   | 5303               | 0        |
| Aug-89 | 11206                                       | 11206   | 4482               | 0        |
| Sep-89 | 11332                                       | 11332   | 4533               | 0        |
| Oct-89 | 9551  | 9551  | 3820               | 0        |
| Nov-89 | 12219                                       | 12219   | 4897               | 0        |
| Dec-89 | 12418                                       | 12418   | 4967               | 0        |

| Month  | Bergen County<br>Total Organic Carbon Load (lb/d) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 18437   | 18437   | 7376               | 0        |
| Feb-88 | 14489   | 14489   | 5794               | 0        |
| Mar-88 | 17619   | 17619   | 7046               | 0        |
| Apr-88 | 18841   | 18841   | 7531               | 0        |
| May-88 | 19599   | 19599   | 7840               | 0        |
| Jun-88 | 21782   | 21782   | 8713               | 0        |
| Jul-88 | 17716   | 17716   | 7086               | 0        |
| Aug-88 | 16539   | 16539   | 6618               | 0        |
| Sep-88 | 15979   | 15979   | 6398               | 0        |
| Oct-88 | 14643   | 14643   | 5860               | 0        |
| Nov-88 | 14370   | 14370   | 5750               | 0        |
| Dec-88 | 16116   | 16116   | 6451               | 0        |
| Jan-89 | 18462   | 18462   | 7385               | 0        |
| Feb-89 | 14489   | 14489   | 5794               | 0        |
| Mar-89 | 17619   | 17619   | 7046               | 0        |
| Apr-89 | 18841   | 18841   | 7531               | 0        |
| May-89 | 19599   | 19599   | 7840               | 0        |
| Jun-89 | 21782   | 21782   | 8713               | 0        |
| Jul-89 | 17716   | 17716   | 7086               | 0        |
| Aug-89 | 16539   | 16539   | 6618               | 0        |
| Sep-89 | 15979   | 15979   | 6398               | 0        |
| Oct-89 | 14643   | 14643   | 5860               | 0        |
| Nov-89 | 14370   | 14370   | 5750               | 0        |
| Dec-89 | 16116   | 16116   | 6451               | 0        |

| Month  | Port Richmond<br>Total Nitrogen Load (lb/d) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline                                    | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 3168  | 3168                              | 1266               | 0        |
| Feb-88 | 3549  | 3549                              | 1419               | 0        |
| Mar-88 | 2655  | 2655                              | 1061               | 0        |
| Apr-88 | 3625  | 3625                              | 1450               | 0        |
| May-88 | 3471  | 3471                              | 1390               | 0        |
| Jun-88 | 2877  | 2877                              | 1152               | 0        |
| Jul-88 | 2280  | 2280                              | 914                | 0        |
| Aug-88 | 2936  | 2936                              | 1176               | 0        |
| Sep-88 | 3937  | 3937                              | 1574               | 0        |
| Oct-88 | 2649  | 2649                              | 1062               | 0        |
| Nov-88 | 2723  | 2723                              | 1089               | 0        |
| Dec-88 | 2973  | 2973                              | 1191               | 0        |
| Jan-89 | 3172  | 3172                              | 1268               | 0        |
| Feb-89 | 3549  | 3549                              | 1419               | 0        |
| Mar-89 | 2655  | 2655                              | 1061               | 0        |
| Apr-89 | 3625  | 3625                              | 1450               | 0        |
| May-89 | 3471  | 3471                              | 1390               | 0        |
| Jun-89 | 2877  | 2877                              | 1152               | 0        |
| Jul-89 | 2280  | 2280                              | 914                | 0        |
| Aug-89 | 2936  | 2936                              | 1176               | 0        |
| Sep-89 | 3937  | 3937                              | 1574               | 0        |
| Oct-89 | 2649  | 2649                              | 1062               | 0        |
| Nov-89 | 2723  | 2723                              | 1089               | 0        |
| Dec-89 | 2973  | 2973                              | 1191               | 0        |

| Month  | Port Richmond<br>Total Organic Carbon Load (lb/d) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 3477  | 3477                              | 1391               | 0        |
| Feb-88 | 3486  | 3486                              | 1393               | 0        |
| Mar-88 | 2594  | 2594                              | 1038               | 0        |
| Apr-88 | 4126  | 4126                              | 1650               | 0        |
| May-88 | 3252  | 3252                              | 1299               | 0        |
| Jun-88 | 2319  | 2319                              | 927                | 0        |
| Jul-88 | 2426  | 2426                              | 970                | 0        |
| Aug-88 | 2952  | 2952                              | 1179               | 0        |
| Sep-88 | 2319  | 2319                              | 927                | 0        |
| Oct-88 | 1650  | 1650                              | 660                | 0        |
| Nov-88 | 1675  | 1675                              | 670                | 0        |
| Dec-88 | 2546  | 2546                              | 1019               | 0        |
| Jan-89 | 3482  | 3482                              | 1392               | 0        |
| Feb-89 | 3486  | 3486                              | 1393               | 0        |
| Mar-89 | 2594  | 2594                              | 1038               | 0        |
| Apr-89 | 4126  | 4126                              | 1650               | 0        |
| May-89 | 3252  | 3252                              | 1299               | 0        |
| Jun-89 | 2319  | 2319                              | 927                | 0        |
| Jul-89 | 2426  | 2426                              | 970                | 0        |
| Aug-89 | 2952  | 2952                              | 1179               | 0        |
| Sep-89 | 2319  | 2319                              | 927                | 0        |
| Oct-89 | 1650  | 1650                              | 660                | 0        |
| Nov-89 | 1675  | 1675                              | 670                | 0        |
| Dec-89 | 2546  | 2546                              | 1019               | 0        |

| Month  | Linden Roselle<br>Total Nitrogen Load (lb/d) |                                   |                    |          |
|--------|--|-----------------------------------|--------------------|----------|
|        | Baseline                                     | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |  | + JB Consent Order                |                    |          |
| Jan-88 | 10247  | 10247                             | 4099               | 0        |
| Feb-88 | 13771  | 13771                             | 5491               | 0        |
| Mar-88 | 11385  | 11385                             | 4545               | 0        |
| Apr-88 | 7695   | 7695                              | 3078               | 0        |
| May-88 | 6391   | 6391                              | 2556               | 0        |
| Jun-88 | 6120   | 6120                              | 2448               | 0        |
| Jul-88 | 5220   | 5220                              | 2088               | 0        |
| Aug-88 | 7201   | 7201                              | 2880               | 0        |
| Sep-88 | 5896   | 5896                              | 2358               | 0        |
| Oct-88 | 2817   | 2817                              | 1125               | 0        |
| Nov-88 | 2993   | 2993                              | 1197               | 0        |
| Dec-88 | 6255   | 6255                              | 2502               | 0        |
| Jan-89 | 10260  | 10260                             | 4104               | 0        |
| Feb-89 | 13771  | 13771                             | 5491               | 0        |
| Mar-89 | 11385  | 11385                             | 4545               | 0        |
| Apr-89 | 7695   | 7695                              | 3078               | 0        |
| May-89 | 6391   | 6391                              | 2556               | 0        |
| Jun-89 | 6120   | 6120                              | 2448               | 0        |
| Jul-89 | 5220   | 5220                              | 2088               | 0        |
| Aug-89 | 7201   | 7201                              | 2880               | 0        |
| Sep-89 | 5896   | 5896                              | 2358               | 0        |
| Oct-89 | 2817   | 2817                              | 1125               | 0        |
| Nov-89 | 2993   | 2993                              | 1197               | 0        |
| Dec-89 | 6255   | 6255                              | 2502               | 0        |



| Month  | Linden Roselle<br>Total Organic Carbon Load (lb/d) |   |                    |          |
|--------|--|---|--------------------|----------|
|        |  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
|        | Baseline   |   |                    |          |
| Jan-88 | 2464   | 2464  | 985                | 0        |
| Feb-88 | 3320   | 3320  | 1327               | 0        |
| Mar-88 | 2739   | 2739  | 1095               | 0        |
| Apr-88 | 1847   | 1847  | 738                | 0        |
| May-88 | 1541   | 1541  | 616                | 0        |
| Jun-88 | 1471   | 1471  | 588                | 0        |
| Jul-88 | 1254   | 1254  | 501                | 0        |
| Aug-88 | 1732   | 1732  | 693                | 0        |
| Sep-88 | 1425   | 1425  | 570                | 0        |
| Oct-88 | 678  | 678   | 272                | 0        |
| Nov-88 | 720  | 720   | 288                | 0        |
| Dec-88 | 1503   | 1503  | 601                | 0        |
| Jan-89 | 2467   | 2467  | 987                | 0        |
| Feb-89 | 3320   | 3320  | 1327               | 0        |
| Mar-89 | 2739   | 2739  | 1095               | 0        |
| Apr-89 | 1847   | 1847  | 738                | 0        |
| May-89 | 1541   | 1541  | 616                | 0        |
| Jun-89 | 1471   | 1471  | 588                | 0        |
| Jul-89 | 1254   | 1254  | 501                | 0        |
| Aug-89 | 1732   | 1732  | 693                | 0        |
| Sep-89 | 1425   | 1425  | 570                | 0        |
| Oct-89 | 678  | 678   | 272                | 0        |
| Nov-89 | 720  | 720   | 288                | 0        |
| Dec-89 | 1503   | 1503  | 601                | 0        |

| Month  | Jnt Meeting Essex Union<br>Total Nitrogen Load (lb/d) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 5094  | 5094  | 2038               | 0        |
| Feb-88 | 9010  | 9010  | 3605               | 0        |
| Mar-88 | 10203   | 10203   | 4082               | 0        |
| Apr-88 | 11596   | 11596   | 4640               | 0        |
| May-88 | 13523   | 13523   | 5411               | 0        |
| Jun-88 | 13186   | 13186   | 5273               | 0        |
| Jul-88 | 13417   | 13417   | 5366               | 0        |
| Aug-88 | 14037   | 14037   | 5616               | 0        |
| Sep-88 | 12457   | 12457   | 4985               | 0        |
| Oct-88 | 4304  | 4304  | 1719               | 0        |
| Nov-88 | 4224  | 4224  | 1692               | 0        |
| Dec-88 | 7311  | 7311  | 2925               | 0        |
| Jan-89 | 5101  | 5101  | 2041               | 0        |
| Feb-89 | 9010  | 9010  | 3605               | 0        |
| Mar-89 | 10203   | 10203   | 4082               | 0        |
| Apr-89 | 11596   | 11596   | 4640               | 0        |
| May-89 | 13523   | 13523   | 5411               | 0        |
| Jun-89 | 13186   | 13186   | 5273               | 0        |
| Jul-89 | 13417   | 13417   | 5366               | 0        |
| Aug-89 | 14037   | 14037   | 5616               | 0        |
| Sep-89 | 12457   | 12457   | 4985               | 0        |
| Oct-89 | 4304  | 4304  | 1719               | 0        |
| Nov-89 | 4224  | 4224  | 1692               | 0        |
| Dec-89 | 7311  | 7311  | 2925               | 0        |

| Month  | Jnt Meeting Essex Union<br>Total Organic Carbon Load (lb/d) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 12347   | 12347   | 4941               | 0        |
| Feb-88 | 9537  | 9537  | 3814               | 0        |
| Mar-88 | 13060   | 13060   | 5225               | 0        |
| Apr-88 | 10260   | 10260   | 4101               | 0        |
| May-88 | 4771  | 4771  | 1907               | 0        |
| Jun-88 | 5185  | 5185  | 2074               | 0        |
| Jul-88 | 4515  | 4515  | 1807               | 0        |
| Aug-88 | 5917  | 5917  | 2366               | 0        |
| Sep-88 | 3862  | 3862  | 1544               | 0        |
| Oct-88 | 13713   | 13713   | 5481               | 0        |
| Nov-88 | 15327   | 15327   | 6129               | 0        |
| Dec-88 | 18329   | 18329   | 7328               | 0        |
| Jan-89 | 12364   | 12364   | 4947               | 0        |
| Feb-89 | 9537  | 9537  | 3814               | 0        |
| Mar-89 | 13060   | 13060   | 5225               | 0        |
| Apr-89 | 10260   | 10260   | 4101               | 0        |
| May-89 | 4771  | 4771  | 1907               | 0        |
| Jun-89 | 5185  | 5185  | 2074               | 0        |
| Jul-89 | 4515  | 4515  | 1807               | 0        |
| Aug-89 | 5917  | 5917  | 2366               | 0        |
| Sep-89 | 3862  | 3862  | 1544               | 0        |
| Oct-89 | 13713   | 13713   | 5481               | 0        |
| Nov-89 | 15327   | 15327   | 6129               | 0        |
| Dec-89 | 18329   | 18329   | 7328               | 0        |

| Month  | Rahway<br>Total Nitrogen Load (lb/d) |                                   |                    |          |
|--------|--------------------------------------|-----------------------------------|--------------------|----------|
|        | Baseline                             | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |                                      | + JB Consent Order                |                    |          |
| Jan-88 | 2977                                 | 2977                              | 1193               | 0        |
| Feb-88 | 4424                                 | 4424                              | 1768               | 0        |
| Mar-88 | 3966                                 | 3966                              | 1588               | 0        |
| Apr-88 | 4021                                 | 4021                              | 1609               | 0        |
| May-88 | 3847                                 | 3847                              | 1537               | 0        |
| Jun-88 | 3423                                 | 3423                              | 1371               | 0        |
| Jul-88 | 3498                                 | 3498                              | 1399               | 0        |
| Aug-88 | 4056                                 | 4056                              | 1623               | 0        |
| Sep-88 | 3453                                 | 3453                              | 1380               | 0        |
| Oct-88 | 2782                                 | 2782                              | 1115               | 0        |
| Nov-88 | 3144                                 | 3144                              | 1257               | 0        |
| Dec-88 | 5783                                 | 5783                              | 2310               | 0        |
| Jan-89 | 2981                                 | 2981                              | 1194               | 0        |
| Feb-89 | 4424                                 | 4424                              | 1768               | 0        |
| Mar-89 | 3966                                 | 3966                              | 1588               | 0        |
| Apr-89 | 4021                                 | 4021                              | 1609               | 0        |
| May-89 | 3847                                 | 3847                              | 1537               | 0        |
| Jun-89 | 3423                                 | 3423                              | 1371               | 0        |
| Jul-89 | 3498                                 | 3498                              | 1399               | 0        |
| Aug-89 | 4056                                 | 4056                              | 1623               | 0        |
| Sep-89 | 3453                                 | 3453                              | 1380               | 0        |
| Oct-89 | 2782                                 | 2782                              | 1115               | 0        |
| Nov-89 | 3144                                 | 3144                              | 1257               | 0        |
| Dec-89 | 5783                                 | 5783                              | 2310               | 0        |

| Month  | Rahway<br>Total Organic Carbon Load (lb/d) |                                   |                    |          |
|--------|--|-----------------------------------|--------------------|----------|
|        | Baseline                                   | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |  | + JB Consent Order                |                    |          |
| Jan-88 | 4513                                       | 4513                              | 1803               | 0        |
| Feb-88 | 6711                                       | 6711                              | 2686               | 0        |
| Mar-88 | 6010                                       | 6010                              | 2402               | 0        |
| Apr-88 | 6098                                       | 6098                              | 2443               | 0        |
| May-88 | 5833                                       | 5833                              | 2332               | 0        |
| Jun-88 | 5190                                       | 5190                              | 2075               | 0        |
| Jul-88 | 5296                                       | 5296                              | 2117               | 0        |
| Aug-88 | 6142                                       | 6142                              | 2459               | 0        |
| Sep-88 | 5225                                       | 5225                              | 2089               | 0        |
| Oct-88 | 4215                                       | 4215                              | 1683               | 0        |
| Nov-88 | 4766                                       | 4766                              | 1907               | 0        |
| Dec-88 | 8766                                       | 8766                              | 3510               | 0        |
| Jan-89 | 4519                                       | 4519                              | 1805               | 0        |
| Feb-89 | 6711                                       | 6711                              | 2686               | 0        |
| Mar-89 | 6010                                       | 6010                              | 2402               | 0        |
| Apr-89 | 6098                                       | 6098                              | 2443               | 0        |
| May-89 | 5833                                       | 5833                              | 2332               | 0        |
| Jun-89 | 5190                                       | 5190                              | 2075               | 0        |
| Jul-89 | 5296                                       | 5296                              | 2117               | 0        |
| Aug-89 | 6142                                       | 6142                              | 2459               | 0        |
| Sep-89 | 5225                                       | 5225                              | 2089               | 0        |
| Oct-89 | 4215                                       | 4215                              | 1683               | 0        |
| Nov-89 | 4766                                       | 4766                              | 1907               | 0        |
| Dec-89 | 8766                                       | 8766                              | 3510               | 0        |

| Month  | Oakwood Beach<br>Total Nitrogen Load (lb/d) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline                                    | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 3293  | 3293  | 1316               | 0        |
| Feb-88 | 3120  | 3120  | 1246               | 0        |
| Mar-88 | 3494  | 3494  | 1400               | 0        |
| Apr-88 | 4813  | 4813  | 1925               | 0        |
| May-88 | 3714  | 3714  | 1485               | 0        |
| Jun-88 | 6201  | 6201  | 2481               | 0        |
| Jul-88 | 6321  | 6321  | 2527               | 0        |
| Aug-88 | 5586  | 5586  | 2234               | 0        |
| Sep-88 | 7214  | 7214  | 2884               | 0        |
| Oct-88 | 2888  | 2888  | 1154               | 0        |
| Nov-88 | 3202  | 3202  | 1282               | 0        |
| Dec-88 | 3886  | 3886  | 1555               | 0        |
| Jan-89 | 3298  | 3298  | 1318               | 0        |
| Feb-89 | 3120  | 3120  | 1246               | 0        |
| Mar-89 | 3494  | 3494  | 1400               | 0        |
| Apr-89 | 4813  | 4813  | 1925               | 0        |
| May-89 | 3714  | 3714  | 1485               | 0        |
| Jun-89 | 6201  | 6201  | 2481               | 0        |
| Jul-89 | 6321  | 6321  | 2527               | 0        |
| Aug-89 | 5586  | 5586  | 2234               | 0        |
| Sep-89 | 7214  | 7214  | 2884               | 0        |
| Oct-89 | 2888  | 2888  | 1154               | 0        |
| Nov-89 | 3202  | 3202  | 1282               | 0        |
| Dec-89 | 3886  | 3886  | 1555               | 0        |

| Month  | Oakwood Beach<br>Total Organic Carbon Load (lb/d) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 2803  | 2803                              | 1121               | 0        |
| Feb-88 | 3059  | 3059                              | 1224               | 0        |
| Mar-88 | 3069  | 3069                              | 1228               | 0        |
| Apr-88 | 3112  | 3112                              | 1245               | 0        |
| May-88 | 3015  | 3015                              | 1206               | 0        |
| Jun-88 | 3010  | 3010                              | 1204               | 0        |
| Jul-88 | 2623  | 2623                              | 1049               | 0        |
| Aug-88 | 2623  | 2623                              | 1049               | 0        |
| Sep-88 | 2130  | 2130                              | 852                | 0        |
| Oct-88 | 2054  | 2054                              | 822                | 0        |
| Nov-88 | 2556  | 2556                              | 1022               | 0        |
| Dec-88 | 2404  | 2404                              | 962                | 0        |
| Jan-89 | 2807  | 2807                              | 1123               | 0        |
| Feb-89 | 3059  | 3059                              | 1224               | 0        |
| Mar-89 | 3069  | 3069                              | 1228               | 0        |
| Apr-89 | 3112  | 3112                              | 1245               | 0        |
| May-89 | 3015  | 3015                              | 1206               | 0        |
| Jun-89 | 3010  | 3010                              | 1204               | 0        |
| Jul-89 | 2623  | 2623                              | 1049               | 0        |
| Aug-89 | 2623  | 2623                              | 1049               | 0        |
| Sep-89 | 2130  | 2130                              | 852                | 0        |
| Oct-89 | 2054  | 2054                              | 822                | 0        |
| Nov-89 | 2556  | 2556                              | 1022               | 0        |
| Dec-89 | 2404  | 2404                              | 962                | 0        |

| Month  | Middlesex County<br>Total Nitrogen Load (lb/d) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline                                       | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 30722  | 30722   | 12299              | 0        |
| Feb-88 | 37483  | 37483   | 14996              | 0        |
| Mar-88 | 32714  | 32714   | 13095              | 0        |
| Apr-88 | 29056  | 29056   | 11632              | 0        |
| May-88 | 27065  | 27065   | 10807              | 0        |
| Jun-88 | 29546  | 29546   | 11828              | 0        |
| Jul-88 | 26675  | 26675   | 10663              | 0        |
| Aug-88 | 27938  | 27938   | 11191              | 0        |
| Sep-88 | 27992  | 27992   | 11198              | 0        |
| Oct-88 | 32714  | 32714   | 13095              | 0        |
| Nov-88 | 32762  | 32762   | 13100              | 0        |
| Dec-88 | 35436  | 35436   | 14165              | 0        |
| Jan-89 | 30763  | 30763   | 12316              | 0        |
| Feb-89 | 37483  | 37483   | 14996              | 0        |
| Mar-89 | 32714  | 32714   | 13095              | 0        |
| Apr-89 | 29056  | 29056   | 11632              | 0        |
| May-89 | 27065  | 27065   | 10807              | 0        |
| Jun-89 | 29546  | 29546   | 11828              | 0        |
| Jul-89 | 26675  | 26675   | 10663              | 0        |
| Aug-89 | 27938  | 27938   | 11191              | 0        |
| Sep-89 | 27992  | 27992   | 11198              | 0        |
| Oct-89 | 32714  | 32714   | 13095              | 0        |
| Nov-89 | 32762  | 32762   | 13100              | 0        |
| Dec-89 | 35436  | 35436   | 14165              | 0        |



| Month  | Middlesex County<br>Total Organic Carbon Load (lb/d) |                                   |                    |          |
|--------|--|-----------------------------------|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |  | + JB Consent Order                |                    |          |
| Jan-88 | 38181  | 38181                             | 15280              | 0        |
| Feb-88 | 33819  | 33819                             | 13528              | 0        |
| Mar-88 | 44661  | 44661                             | 17866              | 0        |
| Apr-88 | 51134  | 51134                             | 20446              | 0        |
| May-88 | 29269  | 29269                             | 11707              | 0        |
| Jun-88 | 22306  | 22306                             | 8924               | 0        |
| Jul-88 | 28682  | 28682                             | 11473              | 0        |
| Aug-88 | 24110  | 24110                             | 9643               | 0        |
| Sep-88 | 31376  | 31376                             | 12549              | 0        |
| Oct-88 | 18497  | 18497                             | 7403               | 0        |
| Nov-88 | 26769  | 26769                             | 10706              | 0        |
| Dec-88 | 56967  | 56967                             | 22796              | 0        |
| Jan-89 | 38233  | 38233                             | 15300              | 0        |
| Feb-89 | 33819  | 33819                             | 13528              | 0        |
| Mar-89 | 44661  | 44661                             | 17866              | 0        |
| Apr-89 | 51134  | 51134                             | 20446              | 0        |
| May-89 | 29269  | 29269                             | 11707              | 0        |
| Jun-89 | 22306  | 22306                             | 8924               | 0        |
| Jul-89 | 28682  | 28682                             | 11473              | 0        |
| Aug-89 | 24110  | 24110                             | 9643               | 0        |
| Sep-89 | 31376  | 31376                             | 12549              | 0        |
| Oct-89 | 18497  | 18497                             | 7403               | 0        |
| Nov-89 | 26769  | 26769                             | 10706              | 0        |
| Dec-89 | 56967  | 56967                             | 22796              | 0        |

| Month  | North River<br>Total Nitrogen Load (lb/d) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline                                  | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 25745                                     | 25745                             | 10298              | 0        |
| Feb-88 | 20754                                     | 20754                             | 8318               | 0        |
| Mar-88 | 19196                                     | 19196                             | 7673               | 0        |
| Apr-88 | 22412                                     | 22412                             | 8951               | 0        |
| May-88 | 22731                                     | 22731                             | 9074               | 0        |
| Jun-88 | 23351                                     | 23351                             | 9348               | 0        |
| Jul-88 | 26256                                     | 26256                             | 10512              | 0        |
| Aug-88 | 26010                                     | 26010                             | 10422              | 0        |
| Sep-88 | 26363                                     | 26363                             | 10553              | 0        |
| Oct-88 | 26168                                     | 26168                             | 10486              | 0        |
| Nov-88 | 29670                                     | 29670                             | 11875              | 0        |
| Dec-88 | 21656                                     | 21656                             | 8663               | 0        |
| Jan-89 | 25780                                     | 25780                             | 10312              | 0        |
| Feb-89 | 20754                                     | 20754                             | 8318               | 0        |
| Mar-89 | 19196                                     | 19196                             | 7673               | 0        |
| Apr-89 | 22412                                     | 22412                             | 8951               | 0        |
| May-89 | 22731                                     | 22731                             | 9074               | 0        |
| Jun-89 | 23351                                     | 23351                             | 9348               | 0        |
| Jul-89 | 26256                                     | 26256                             | 10512              | 0        |
| Aug-89 | 26010                                     | 26010                             | 10422              | 0        |
| Sep-89 | 26363                                     | 26363                             | 10553              | 0        |
| Oct-89 | 26168                                     | 26168                             | 10486              | 0        |
| Nov-89 | 29670                                     | 29670                             | 11875              | 0        |
| Dec-89 | 21656                                     | 21656                             | 8663               | 0        |

| Month  | North River<br>Total Organic Carbon Load (lb/d) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 23470   | 23470                             | 9388               | 0        |
| Feb-88 | 20009   | 20009                             | 7998               | 0        |
| Mar-88 | 19136   | 19136                             | 7654               | 0        |
| Apr-88 | 18730   | 18730                             | 7496               | 0        |
| May-88 | 18845   | 18845                             | 7540               | 0        |
| Jun-88 | 21156   | 21156                             | 8461               | 0        |
| Jul-88 | 22544   | 22544                             | 9017               | 0        |
| Aug-88 | 20538   | 20538                             | 8214               | 0        |
| Sep-88 | 25988   | 25988                             | 10393              | 0        |
| Oct-88 | 21998   | 21998                             | 8801               | 0        |
| Nov-88 | 26769   | 26769                             | 10706              | 0        |
| Dec-88 | 33140   | 33140                             | 13254              | 0        |
| Jan-89 | 23501   | 23501                             | 9401               | 0        |
| Feb-89 | 20009   | 20009                             | 7998               | 0        |
| Mar-89 | 19136   | 19136                             | 7654               | 0        |
| Apr-89 | 18730   | 18730                             | 7496               | 0        |
| May-89 | 18845   | 18845                             | 7540               | 0        |
| Jun-89 | 21156   | 21156                             | 8461               | 0        |
| Jul-89 | 22544   | 22544                             | 9017               | 0        |
| Aug-89 | 20538   | 20538                             | 8214               | 0        |
| Sep-89 | 25988   | 25988                             | 10393              | 0        |
| Oct-89 | 21998   | 21998                             | 8801               | 0        |
| Nov-89 | 26769   | 26769                             | 10706              | 0        |
| Dec-89 | 33140   | 33140                             | 13254              | 0        |

| Month  | Owls Head<br>Total Nitrogen Load (lb/d) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline                                | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 21242                                   | 21242                             | 8505               | 0        |
| Feb-88 | 17361                                   | 17361                             | 6935               | 0        |
| Mar-88 | 19054                                   | 19054                             | 7616               | 0        |
| Apr-88 | 16118                                   | 16118                             | 6466               | 0        |
| May-88 | 15636                                   | 15636                             | 6256               | 0        |
| Jun-88 | 16163                                   | 16163                             | 6465               | 0        |
| Jul-88 | 21472                                   | 21472                             | 8607               | 0        |
| Aug-88 | 15861                                   | 15861                             | 6327               | 0        |
| Sep-88 | 16023                                   | 16023                             | 6410               | 0        |
| Oct-88 | 16580                                   | 16580                             | 6623               | 0        |
| Nov-88 | 20607                                   | 20607                             | 8223               | 0        |
| Dec-88 | 25854                                   | 25854                             | 10330              | 0        |
| Jan-89 | 21271                                   | 21271                             | 8516               | 0        |
| Feb-89 | 17361                                   | 17361                             | 6935               | 0        |
| Mar-89 | 19054                                   | 19054                             | 7616               | 0        |
| Apr-89 | 16118                                   | 16118                             | 6466               | 0        |
| May-89 | 15636                                   | 15636                             | 6256               | 0        |
| Jun-89 | 16163                                   | 16163                             | 6465               | 0        |
| Jul-89 | 21472                                   | 21472                             | 8607               | 0        |
| Aug-89 | 15861                                   | 15861                             | 6327               | 0        |
| Sep-89 | 16023                                   | 16023                             | 6410               | 0        |
| Oct-89 | 16580                                   | 16580                             | 6623               | 0        |
| Nov-89 | 20607                                   | 20607                             | 8223               | 0        |
| Dec-89 | 25854                                   | 25854                             | 10330              | 0        |

| Month  | Owls Head<br>Total Organic Carbon Load (lb/d) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline                                      | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 21264   | 21264                             | 8507               | 0        |
| Feb-88 | 23903   | 23903                             | 9564               | 0        |
| Mar-88 | 19502   | 19502                             | 7804               | 0        |
| Apr-88 | 18448   | 18448                             | 7381               | 0        |
| May-88 | 19978   | 19978                             | 7994               | 0        |
| Jun-88 | 18598   | 18598                             | 7443               | 0        |
| Jul-88 | 19365   | 19365                             | 7747               | 0        |
| Aug-88 | 13655   | 13655                             | 5463               | 0        |
| Sep-88 | 13876   | 13876                             | 5551               | 0        |
| Oct-88 | 23515   | 23515                             | 9405               | 0        |
| Nov-88 | 48105   | 48105                             | 19260              | 0        |
| Dec-88 | 25825   | 25825                             | 10335              | 0        |
| Jan-89 | 21292   | 21292                             | 8519               | 0        |
| Feb-89 | 23903   | 23903                             | 9564               | 0        |
| Mar-89 | 19502   | 19502                             | 7804               | 0        |
| Apr-89 | 18448   | 18448                             | 7381               | 0        |
| May-89 | 19978   | 19978                             | 7994               | 0        |
| Jun-89 | 18598   | 18598                             | 7443               | 0        |
| Jul-89 | 19365   | 19365                             | 7747               | 0        |
| Aug-89 | 13655   | 13655                             | 5463               | 0        |
| Sep-89 | 13876   | 13876                             | 5551               | 0        |
| Oct-89 | 23515   | 23515                             | 9405               | 0        |
| Nov-89 | 48105   | 48105                             | 19260              | 0        |
| Dec-89 | 25825   | 25825                             | 10335              | 0        |

| Month  | Yonkers<br>Total Nitrogen Load (lb/d) |                                   |                    |          |
|--------|---------------------------------------|-----------------------------------|--------------------|----------|
|        | Baseline                              | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |                                       | + JB Consent Order                |                    |          |
| Jan-88 | 10816                                 | 10816                             | 4326               | 0        |
| Feb-88 | 11188                                 | 11188                             | 4475               | 0        |
| Mar-88 | 10968                                 | 10968                             | 4387               | 0        |
| Apr-88 | 10443                                 | 10443                             | 4177               | 0        |
| May-88 | 9096                                  | 9096                              | 3639               | 0        |
| Jun-88 | 13330                                 | 13330                             | 5315               | 0        |
| Jul-88 | 13148                                 | 13148                             | 5251               | 0        |
| Aug-88 | 10068                                 | 10068                             | 4027               | 0        |
| Sep-88 | 13061                                 | 13061                             | 5224               | 0        |
| Oct-88 | 11543                                 | 11543                             | 4617               | 0        |
| Nov-88 | 13606                                 | 13606                             | 5442               | 0        |
| Dec-88 | 8726                                  | 8726                              | 3490               | 0        |
| Jan-89 | 10831                                 | 10831                             | 4332               | 0        |
| Feb-89 | 11188                                 | 11188                             | 4475               | 0        |
| Mar-89 | 10968                                 | 10968                             | 4387               | 0        |
| Apr-89 | 10443                                 | 10443                             | 4177               | 0        |
| May-89 | 9096                                  | 9096                              | 3639               | 0        |
| Jun-89 | 13330                                 | 13330                             | 5315               | 0        |
| Jul-89 | 13148                                 | 13148                             | 5251               | 0        |
| Aug-89 | 10068                                 | 10068                             | 4027               | 0        |
| Sep-89 | 13061                                 | 13061                             | 5224               | 0        |
| Oct-89 | 11543                                 | 11543                             | 4617               | 0        |
| Nov-89 | 13606                                 | 13606                             | 5442               | 0        |
| Dec-89 | 8726                                  | 8726                              | 3490               | 0        |

| Month  | Yonkers<br>Total Organic Carbon Load (lb/d) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline                                    | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 18921                                       | 18921                             | 7569               | 0        |
| Feb-88 | 15860                                       | 15860                             | 6345               | 0        |
| Mar-88 | 13506                                       | 13506                             | 5401               | 0        |
| Apr-88 | 15022                                       | 15022                             | 6010               | 0        |
| May-88 | 11998                                       | 11998                             | 4797               | 0        |
| Jun-88 | 11861                                       | 11861                             | 4749               | 0        |
| Jul-88 | 10225                                       | 10225                             | 4092               | 0        |
| Aug-88 | 4383  | 4383                              | 1752               | 0        |
| Sep-88 | 6080  | 6080                              | 2433               | 0        |
| Oct-88 | 4264  | 4264                              | 1705               | 0        |
| Nov-88 | 9004  | 9004                              | 3601               | 0        |
| Dec-88 | 12328                                       | 12328                             | 4938               | 0        |
| Jan-89 | 18947                                       | 18947                             | 7579               | 0        |
| Feb-89 | 15860                                       | 15860                             | 6345               | 0        |
| Mar-89 | 13506                                       | 13506                             | 5401               | 0        |
| Apr-89 | 15022                                       | 15022                             | 6010               | 0        |
| May-89 | 11998                                       | 11998                             | 4797               | 0        |
| Jun-89 | 11861                                       | 11861                             | 4749               | 0        |
| Jul-89 | 10225                                       | 10225                             | 4092               | 0        |
| Aug-89 | 4383  | 4383                              | 1752               | 0        |
| Sep-89 | 6080  | 6080                              | 2433               | 0        |
| Oct-89 | 4264  | 4264                              | 1705               | 0        |
| Nov-89 | 9004  | 9004                              | 3601               | 0        |
| Dec-89 | 12328                                       | 12328                             | 4938               | 0        |

| Month  | North Bergen Woodcliff<br>Total Nitrogen Load (lb/d) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 337  | 337   | 135                | 0        |
| Feb-88 | 365  | 365   | 146                | 0        |
| Mar-88 | 350  | 350   | 140                | 0        |
| Apr-88 | 322  | 322   | 129                | 0        |
| May-88 | 348  | 348   | 139                | 0        |
| Jun-88 | 406  | 406   | 162                | 0        |
| Jul-88 | 360  | 360   | 144                | 0        |
| Aug-88 | 321  | 321   | 129                | 0        |
| Sep-88 | 317  | 317   | 127                | 0        |
| Oct-88 | 338  | 338   | 135                | 0        |
| Nov-88 | 349  | 349   | 139                | 0        |
| Dec-88 | 389  | 389   | 156                | 0        |
| Jan-89 | 338  | 338   | 135                | 0        |
| Feb-89 | 365  | 365   | 146                | 0        |
| Mar-89 | 350  | 350   | 140                | 0        |
| Apr-89 | 322  | 322   | 129                | 0        |
| May-89 | 348  | 348   | 139                | 0        |
| Jun-89 | 406  | 406   | 162                | 0        |
| Jul-89 | 360  | 360   | 144                | 0        |
| Aug-89 | 321  | 321   | 129                | 0        |
| Sep-89 | 317  | 317   | 127                | 0        |
| Oct-89 | 338  | 338   | 135                | 0        |
| Nov-89 | 349  | 349   | 139                | 0        |
| Dec-89 | 389  | 389   | 156                | 0        |



| Month  | North Bergen Woodcliff<br>Total Organic Carbon Load (lb/d) |   |                    |          |
|--------|--|---|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 758  | 758   | 303                | 0        |
| Feb-88 | 1131   | 1131  | 452                | 0        |
| Mar-88 | 897  | 897   | 359                | 0        |
| Apr-88 | 807  | 807   | 323                | 0        |
| May-88 | 697  | 697   | 279                | 0        |
| Jun-88 | 589  | 589   | 236                | 0        |
| Jul-88 | 506  | 506   | 202                | 0        |
| Aug-88 | 557  | 557   | 223                | 0        |
| Sep-88 | 448  | 448   | 179                | 0        |
| Oct-88 | 596  | 596   | 238                | 0        |
| Nov-88 | 875  | 875   | 350                | 0        |
| Dec-88 | 694  | 694   | 278                | 0        |
| Jan-89 | 759  | 759   | 303                | 0        |
| Feb-89 | 1131   | 1131  | 452                | 0        |
| Mar-89 | 897  | 897   | 359                | 0        |
| Apr-89 | 807  | 807   | 323                | 0        |
| May-89 | 697  | 697   | 279                | 0        |
| Jun-89 | 589  | 589   | 236                | 0        |
| Jul-89 | 506  | 506   | 202                | 0        |
| Aug-89 | 557  | 557   | 223                | 0        |
| Sep-89 | 448  | 448   | 179                | 0        |
| Oct-89 | 596  | 596   | 238                | 0        |
| Nov-89 | 875  | 875   | 350                | 0        |
| Dec-89 | 694  | 694   | 278                | 0        |

| Month  | Hoboken<br>Total Nitrogen Load (lb/d) |                                   |                    |          |
|--------|---------------------------------------|-----------------------------------|--------------------|----------|
|        | Baseline                              | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |                                       | + JB Consent Order                |                    |          |
| Jan-88 | 1100                                  | 1100                              | 440                | 0        |
| Feb-88 | 1274                                  | 1274                              | 509                | 0        |
| Mar-88 | 534                                   | 534                               | 213                | 0        |
| Apr-88 | 1118                                  | 1118                              | 447                | 0        |
| May-88 | 1621                                  | 1621                              | 650                | 0        |
| Jun-88 | 3049                                  | 3049                              | 1219               | 0        |
| Jul-88 | 2102                                  | 2102                              | 842                | 0        |
| Aug-88 | 2755                                  | 2755                              | 1103               | 0        |
| Sep-88 | 2244                                  | 2244                              | 899                | 0        |
| Oct-88 | 3056                                  | 3056                              | 1221               | 0        |
| Nov-88 | 1975                                  | 1975                              | 790                | 0        |
| Dec-88 | 1415                                  | 1415                              | 568                | 0        |
| Jan-89 | 1102                                  | 1102                              | 441                | 0        |
| Feb-89 | 1274                                  | 1274                              | 509                | 0        |
| Mar-89 | 534                                   | 534                               | 213                | 0        |
| Apr-89 | 1118                                  | 1118                              | 447                | 0        |
| May-89 | 1621                                  | 1621                              | 650                | 0        |
| Jun-89 | 3049                                  | 3049                              | 1219               | 0        |
| Jul-89 | 2102                                  | 2102                              | 842                | 0        |
| Aug-89 | 2755                                  | 2755                              | 1103               | 0        |
| Sep-89 | 2244                                  | 2244                              | 899                | 0        |
| Oct-89 | 3056                                  | 3056                              | 1221               | 0        |
| Nov-89 | 1975                                  | 1975                              | 790                | 0        |
| Dec-89 | 1415                                  | 1415                              | 568                | 0        |

| Month  | Hoboken<br>Total Organic Carbon Load (lb/d) |                                   |                    |          |  |
|--------|---|-----------------------------------|--------------------|----------|--|
|        | Baseline                                    | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |  |
|        |   | + JB Consent Order                |                    |          |  |
| Jan-88 | 1887  | 1887                              | 755                | 0        |  |
| Feb-88 | 1924  | 1924                              | 769                | 0        |  |
| Mar-88 | 1039  | 1039                              | 416                | 0        |  |
| Apr-88 | 1305  | 1305                              | 522                | 0        |  |
| May-88 | 1868  | 1868                              | 747                | 0        |  |
| Jun-88 | 2138  | 2138                              | 855                | 0        |  |
| Jul-88 | 1691  | 1691                              | 676                | 0        |  |
| Aug-88 | 1467  | 1467                              | 587                | 0        |  |
| Sep-88 | 1815  | 1815                              | 726                | 0        |  |
| Oct-88 | 1614  | 1614                              | 646                | 0        |  |
| Nov-88 | 1430  | 1430                              | 572                | 0        |  |
| Dec-88 | 1989  | 1989                              | 796                | 0        |  |
| Jan-89 | 1890  | 1890                              | 756                | 0        |  |
| Feb-89 | 1924  | 1924                              | 769                | 0        |  |
| Mar-89 | 1039  | 1039                              | 416                | 0        |  |
| Apr-89 | 1305  | 1305                              | 522                | 0        |  |
| May-89 | 1868  | 1868                              | 747                | 0        |  |
| Jun-89 | 2138  | 2138                              | 855                | 0        |  |
| Jul-89 | 1691  | 1691                              | 676                | 0        |  |
| Aug-89 | 1467  | 1467                              | 587                | 0        |  |
| Sep-89 | 1815  | 1815                              | 726                | 0        |  |
| Oct-89 | 1614  | 1614                              | 646                | 0        |  |
| Nov-89 | 1430  | 1430                              | 572                | 0        |  |
| Dec-89 | 1989  | 1989                              | 796                | 0        |  |

| Month  | West New York<br>Total Nitrogen Load (lb/d) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline                                    | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 1080  | 1080                              | 432                | 0        |
| Feb-88 | 1043  | 1043                              | 417                | 0        |
| Mar-88 | 937   | 937                               | 375                | 0        |
| Apr-88 | 938   | 938                               | 375                | 0        |
| May-88 | 956   | 956                               | 383                | 0        |
| Jun-88 | 1165  | 1165                              | 466                | 0        |
| Jul-88 | 1317  | 1317                              | 527                | 0        |
| Aug-88 | 898   | 898                               | 359                | 0        |
| Sep-88 | 700   | 700                               | 280                | 0        |
| Oct-88 | 1140  | 1140                              | 456                | 0        |
| Nov-88 | 1199  | 1199                              | 480                | 0        |
| Dec-88 | 1241  | 1241                              | 496                | 0        |
| Jan-89 | 1081  | 1081                              | 433                | 0        |
| Feb-89 | 1043  | 1043                              | 417                | 0        |
| Mar-89 | 937   | 937                               | 375                | 0        |
| Apr-89 | 938   | 938                               | 375                | 0        |
| May-89 | 956   | 956                               | 383                | 0        |
| Jun-89 | 1165  | 1165                              | 466                | 0        |
| Jul-89 | 1317  | 1317                              | 527                | 0        |
| Aug-89 | 898   | 898                               | 359                | 0        |
| Sep-89 | 700   | 700                               | 280                | 0        |
| Oct-89 | 1140  | 1140                              | 456                | 0        |
| Nov-89 | 1199  | 1199                              | 480                | 0        |
| Dec-89 | 1241  | 1241                              | 496                | 0        |

| Month  | West New York<br>Total Organic Carbon Load (lb/d) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 2374  | 2374                              | 949                | 0        |
| Feb-88 | 3038  | 3038                              | 1215               | 0        |
| Mar-88 | 2604  | 2604                              | 1041               | 0        |
| Apr-88 | 4334  | 4334                              | 1735               | 0        |
| May-88 | 2582  | 2582                              | 1032               | 0        |
| Jun-88 | 2158  | 2158                              | 863                | 0        |
| Jul-88 | 2453  | 2453                              | 981                | 0        |
| Aug-88 | 1379  | 1379                              | 552                | 0        |
| Sep-88 | 1355  | 1355                              | 542                | 0        |
| Oct-88 | 3099  | 3099                              | 1240               | 0        |
| Nov-88 | 2726  | 2726                              | 1091               | 0        |
| Dec-88 | 2130  | 2130                              | 851                | 0        |
| Jan-89 | 2377  | 2377                              | 951                | 0        |
| Feb-89 | 3038  | 3038                              | 1215               | 0        |
| Mar-89 | 2604  | 2604                              | 1041               | 0        |
| Apr-89 | 4334  | 4334                              | 1735               | 0        |
| May-89 | 2582  | 2582                              | 1032               | 0        |
| Jun-89 | 2158  | 2158                              | 863                | 0        |
| Jul-89 | 2453  | 2453                              | 981                | 0        |
| Aug-89 | 1379  | 1379                              | 552                | 0        |
| Sep-89 | 1355  | 1355                              | 542                | 0        |
| Oct-89 | 3099  | 3099                              | 1240               | 0        |
| Nov-89 | 2726  | 2726                              | 1091               | 0        |
| Dec-89 | 2130  | 2130                              | 851                | 0        |

| Month  | Passaic Valley<br>Total Nitrogen Load (lb/d) |                                   |                    |          |
|--------|--|-----------------------------------|--------------------|----------|
|        | Baseline                                     | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |  | + JB Consent Order                |                    |          |
| Jan-88 | 59057  | 59057                             | 23641              | 0        |
| Feb-88 | 78886  | 78886                             | 31575              | 0        |
| Mar-88 | 78820  | 78820                             | 31531              | 0        |
| Apr-88 | 63295  | 63295                             | 25318              | 0        |
| May-88 | 65160  | 65160                             | 26064              | 0        |
| Jun-88 | 53013  | 53013                             | 21209              | 0        |
| Jul-88 | 54146  | 54146                             | 21658              | 0        |
| Aug-88 | 65491  | 65491                             | 26193              | 0        |
| Sep-88 | 57257  | 57257                             | 22901              | 0        |
| Oct-88 | 70341  | 70341                             | 28135              | 0        |
| Nov-88 | 64640  | 64640                             | 25851              | 0        |
| Dec-88 | 58952  | 58952                             | 23589              | 0        |
| Jan-89 | 59137  | 59137                             | 23673              | 0        |
| Feb-89 | 78886  | 78886                             | 31575              | 0        |
| Mar-89 | 78820  | 78820                             | 31531              | 0        |
| Apr-89 | 63295  | 63295                             | 25318              | 0        |
| May-89 | 65160  | 65160                             | 26064              | 0        |
| Jun-89 | 53013  | 53013                             | 21209              | 0        |
| Jul-89 | 54146  | 54146                             | 21658              | 0        |
| Aug-89 | 65491  | 65491                             | 26193              | 0        |
| Sep-89 | 57257  | 57257                             | 22901              | 0        |
| Oct-89 | 70341  | 70341                             | 28135              | 0        |
| Nov-89 | 64640  | 64640                             | 25851              | 0        |
| Dec-89 | 58952  | 58952                             | 23589              | 0        |

| Month  | Passaic Valley<br>Total Organic Carbon Load (lb/d) |                                   |                    |          |
|--------|--|-----------------------------------|--------------------|----------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |  | + JB Consent Order                |                    |          |
| Jan-88 | 94671  | 94671                             | 37833              | 0        |
| Feb-88 | 96386  | 96386                             | 38581              | 0        |
| Mar-88 | 106042   | 106042                            | 42435              | 0        |
| Apr-88 | 116713   | 116713                            | 46703              | 0        |
| May-88 | 93961  | 93961                             | 37584              | 0        |
| Jun-88 | 84393  | 84393                             | 33748              | 0        |
| Jul-88 | 78617  | 78617                             | 31429              | 0        |
| Aug-88 | 92153  | 92153                             | 36870              | 0        |
| Sep-88 | 71871  | 71871                             | 28722              | 0        |
| Oct-88 | 77426  | 77426                             | 30953              | 0        |
| Nov-88 | 88273  | 88273                             | 35353              | 0        |
| Dec-88 | 88317  | 88317                             | 35353              | 0        |
| Jan-89 | 94799  | 94799                             | 37884              | 0        |
| Feb-89 | 96386  | 96386                             | 38581              | 0        |
| Mar-89 | 106042   | 106042                            | 42435              | 0        |
| Apr-89 | 116713   | 116713                            | 46703              | 0        |
| May-89 | 93961  | 93961                             | 37584              | 0        |
| Jun-89 | 84393  | 84393                             | 33748              | 0        |
| Jul-89 | 78617  | 78617                             | 31429              | 0        |
| Aug-89 | 92153  | 92153                             | 36870              | 0        |
| Sep-89 | 71871  | 71871                             | 28722              | 0        |
| Oct-89 | 77426  | 77426                             | 30953              | 0        |
| Nov-89 | 88273  | 88273                             | 35353              | 0        |
| Dec-89 | 88317  | 88317                             | 35353              | 0        |

| Month  | Edgewater<br>Total Nitrogen Load (lb/d) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline                                | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 592                                     | 592                               | 237                | 0        |
| Feb-88 | 472                                     | 472                               | 189                | 0        |
| Mar-88 | 385                                     | 385                               | 154                | 0        |
| Apr-88 | 412                                     | 412                               | 165                | 0        |
| May-88 | 364                                     | 364                               | 146                | 0        |
| Jun-88 | 339                                     | 339                               | 136                | 0        |
| Jul-88 | 335                                     | 335                               | 134                | 0        |
| Aug-88 | 266                                     | 266                               | 107                | 0        |
| Sep-88 | 282                                     | 282                               | 113                | 0        |
| Oct-88 | 520                                     | 520                               | 208                | 0        |
| Nov-88 | 289                                     | 289                               | 116                | 0        |
| Dec-88 | 411                                     | 411                               | 165                | 0        |
| Jan-89 | 593                                     | 593                               | 237                | 0        |
| Feb-89 | 472                                     | 472                               | 189                | 0        |
| Mar-89 | 385                                     | 385                               | 154                | 0        |
| Apr-89 | 412                                     | 412                               | 165                | 0        |
| May-89 | 364                                     | 364                               | 146                | 0        |
| Jun-89 | 339                                     | 339                               | 136                | 0        |
| Jul-89 | 335                                     | 335                               | 134                | 0        |
| Aug-89 | 266                                     | 266                               | 107                | 0        |
| Sep-89 | 282                                     | 282                               | 113                | 0        |
| Oct-89 | 520                                     | 520                               | 208                | 0        |
| Nov-89 | 289                                     | 289                               | 116                | 0        |
| Dec-89 | 411                                     | 411                               | 165                | 0        |



| Month  | Edgewater<br>Total Organic Carbon Load (lb/d) |                                   |                    |          |
|--------|---|-----------------------------------|--------------------|----------|
|        | Baseline                                      | Baseline<br>+ CAIR<br>+ LISS TMDL | HydroQual Scenario | Pastoral |
|        |   | + JB Consent Order                |                    |          |
| Jan-88 | 694   | 694                               | 278                | 0        |
| Feb-88 | 581   | 581                               | 232                | 0        |
| Mar-88 | 625   | 625                               | 250                | 0        |
| Apr-88 | 567   | 567                               | 227                | 0        |
| May-88 | 586   | 586                               | 235                | 0        |
| Jun-88 | 413   | 413                               | 165                | 0        |
| Jul-88 | 459   | 459                               | 184                | 0        |
| Aug-88 | 463   | 463                               | 185                | 0        |
| Sep-88 | 484   | 484                               | 194                | 0        |
| Oct-88 | 466   | 466                               | 187                | 0        |
| Nov-88 | 668   | 668                               | 267                | 0        |
| Dec-88 | 786   | 786                               | 315                | 0        |
| Jan-89 | 694   | 694                               | 278                | 0        |
| Feb-89 | 581   | 581                               | 232                | 0        |
| Mar-89 | 625   | 625                               | 250                | 0        |
| Apr-89 | 567   | 567                               | 227                | 0        |
| May-89 | 586   | 586                               | 235                | 0        |
| Jun-89 | 413   | 413                               | 165                | 0        |
| Jul-89 | 459   | 459                               | 184                | 0        |
| Aug-89 | 463   | 463                               | 185                | 0        |
| Sep-89 | 484   | 484                               | 194                | 0        |
| Oct-89 | 466   | 466                               | 187                | 0        |
| Nov-89 | 668   | 668                               | 267                | 0        |
| Dec-89 | 786   | 786                               | 315                | 0        |

| Month  | North Bergen Central<br>Total Nitrogen Load (lb/d) |   |                    |          |                                   |                                      |                                    |
|--------|--|---|--------------------|----------|-----------------------------------|--------------------------------------|------------------------------------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = N/A (mg/L) | Medium TN Removal<br>TN = N/A (mg/L) | High TN Removal<br>TN = N/A (mg/L) |
| Jan-88 | 668  | 668   | 267                | 0        | N/A                               | N/A                                  | N/A                                |
| Feb-88 | 732  | 732   | 293                | 0        | N/A                               | N/A                                  | N/A                                |
| Mar-88 | 706  | 706   | 282                | 0        | N/A                               | N/A                                  | N/A                                |
| Apr-88 | 696  | 696   | 278                | 0        | N/A                               | N/A                                  | N/A                                |
| May-88 | 733  | 733   | 293                | 0        | N/A                               | N/A                                  | N/A                                |
| Jun-88 | 786  | 786   | 315                | 0        | N/A                               | N/A                                  | N/A                                |
| Jul-88 | 851  | 851   | 341                | 0        | N/A                               | N/A                                  | N/A                                |
| Aug-88 | 770  | 770   | 308                | 0        | N/A                               | N/A                                  | N/A                                |
| Sep-88 | 804  | 804   | 322                | 0        | N/A                               | N/A                                  | N/A                                |
| Oct-88 | 744  | 744   | 297                | 0        | N/A                               | N/A                                  | N/A                                |
| Nov-88 | 637  | 637   | 255                | 0        | N/A                               | N/A                                  | N/A                                |
| Dec-88 | 770  | 770   | 308                | 0        | N/A                               | N/A                                  | N/A                                |
| Jan-89 | 669  | 669   | 267                | 0        | N/A                               | N/A                                  | N/A                                |
| Feb-89 | 732  | 732   | 293                | 0        | N/A                               | N/A                                  | N/A                                |
| Mar-89 | 706  | 706   | 282                | 0        | N/A                               | N/A                                  | N/A                                |
| Apr-89 | 696  | 696   | 278                | 0        | N/A                               | N/A                                  | N/A                                |
| May-89 | 733  | 733   | 293                | 0        | N/A                               | N/A                                  | N/A                                |
| Jun-89 | 786  | 786   | 315                | 0        | N/A                               | N/A                                  | N/A                                |
| Jul-89 | 851  | 851   | 341                | 0        | N/A                               | N/A                                  | N/A                                |
| Aug-89 | 770  | 770   | 308                | 0        | N/A                               | N/A                                  | N/A                                |
| Sep-89 | 804  | 804   | 322                | 0        | N/A                               | N/A                                  | N/A                                |
| Oct-89 | 744  | 744   | 297                | 0        | N/A                               | N/A                                  | N/A                                |
| Nov-89 | 637  | 637   | 255                | 0        | N/A                               | N/A                                  | N/A                                |
| Dec-89 | 770  | 770   | 308                | 0        | N/A                               | N/A                                  | N/A                                |

| Month  | North Bergen Central<br>Total Organic Carbon Load (lb/d) |   |                    |          |                                     |   |                                      |  |
|--------|--|---|--------------------|----------|-------------------------------------|---|--------------------------------------|--|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = N/A (mg/L) | Medium BOD<br>Removal<br>BOD = N/A (mg/L) | High BOD Removal<br>BOD = N/A (mg/L) |  |
| Jan-88 | 2491   | 2491  | 996                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Feb-88 | 3489   | 3489  | 1395               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Mar-88 | 2638   | 2638  | 1056               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Apr-88 | 2566   | 2566  | 1026               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| May-88 | 2553   | 2553  | 1021               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jun-88 | 2363   | 2363  | 945                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jul-88 | 1465   | 1465  | 586                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Aug-88 | 2378   | 2378  | 951                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Sep-88 | 1702   | 1702  | 681                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Oct-88 | 2648   | 2648  | 1059               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Nov-88 | 2402   | 2402  | 961                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Dec-88 | 2258   | 2258  | 903                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jan-89 | 2495   | 2495  | 998                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Feb-89 | 3489   | 3489  | 1395               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Mar-89 | 2638   | 2638  | 1056               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Apr-89 | 2566   | 2566  | 1026               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| May-89 | 2553   | 2553  | 1021               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jun-89 | 2363   | 2363  | 945                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jul-89 | 1465   | 1465  | 586                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Aug-89 | 2378   | 2378  | 951                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Sep-89 | 1702   | 1702  | 681                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Oct-89 | 2648   | 2648  | 1059               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Nov-89 | 2402   | 2402  | 961                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Dec-89 | 2258   | 2258  | 903                | 0        | N/A                                 | N/A                                       | N/A                                  |  |

| Month  | Secaucus<br>Total Nitrogen Load (lb/d) |   |                    |          |                                    |                                       |                                    |
|--------|--|---|--------------------|----------|------------------------------------|---------------------------------------|------------------------------------|
|        | Baseline                               | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = 24.5 (mg/L) | Medium TN Removal<br>TN = 11.0 (mg/L) | High TN Removal<br>TN = 4.0 (mg/L) |
| Jan-88 | 696                                    | 696   | 278                | 0        | 654                                | 293                                   | 107                                |
| Feb-88 | 793                                    | 793   | 317                | 0        | 634                                | 285                                   | 104                                |
| Mar-88 | 597                                    | 597   | 239                | 0        | 654                                | 294                                   | 107                                |
| Apr-88 | 543                                    | 543   | 217                | 0        | 593                                | 266                                   | 97                                 |
| May-88 | 546                                    | 546   | 219                | 0        | 614                                | 275                                   | 100                                |
| Jun-88 | 800                                    | 800   | 320                | 0        | 614                                | 275                                   | 100                                |
| Jul-88 | 487                                    | 487   | 195                | 0        | 675                                | 303                                   | 110                                |
| Aug-88 | 546                                    | 546   | 218                | 0        | 614                                | 275                                   | 100                                |
| Sep-88 | 693                                    | 693   | 277                | 0        | 675                                | 303                                   | 110                                |
| Oct-88 | 873                                    | 873   | 349                | 0        | 593                                | 266                                   | 97                                 |
| Nov-88 | 615                                    | 615   | 246                | 0        | 593                                | 266                                   | 97                                 |
| Dec-88 | 385                                    | 385   | 154                | 0        | 634                                | 285                                   | 104                                |
| Jan-89 | 697                                    | 697   | 279                | 0        | 654                                | 294                                   | 107                                |
| Feb-89 | 793                                    | 793   | 317                | 0        | 634                                | 285                                   | 104                                |
| Mar-89 | 597                                    | 597   | 239                | 0        | 654                                | 294                                   | 107                                |
| Apr-89 | 543                                    | 543   | 217                | 0        | 593                                | 266                                   | 97                                 |
| May-89 | 546                                    | 546   | 219                | 0        | 614                                | 275                                   | 100                                |
| Jun-89 | 800                                    | 800   | 320                | 0        | 614                                | 275                                   | 100                                |
| Jul-89 | 487                                    | 487   | 195                | 0        | 675                                | 303                                   | 110                                |
| Aug-89 | 546                                    | 546   | 218                | 0        | 614                                | 275                                   | 100                                |
| Sep-89 | 693                                    | 693   | 277                | 0        | 675                                | 303                                   | 110                                |
| Oct-89 | 873                                    | 873   | 349                | 0        | 593                                | 266                                   | 97                                 |
| Nov-89 | 615                                    | 615   | 246                | 0        | 593                                | 266                                   | 97                                 |
| Dec-89 | 385                                    | 385   | 154                | 0        | 634                                | 285                                   | 104                                |

| Month  | Secaucus<br>Total Organic Carbon Load (lb/d) |   |                    |          |                                     |   |                                      |
|--------|--|---|--------------------|----------|-------------------------------------|---|--------------------------------------|
|        | Baseline                                     | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = 6.5 (mg/L) | Medium BOD<br>Removal<br>BOD = 4.0 (mg/L) | High BOD Removal<br>BOD = 1.5 (mg/L) |
|        | Jan-88                                       | 569   | 569                | 227      | 0                                   | 355                                       | 218                                  |
| Feb-88 | 713  | 713   | 286                | 0        | 345                                 | 212                                       | 80                                   |
| Mar-88 | 563  | 563   | 225                | 0        | 356                                 | 219                                       | 82                                   |
| Apr-88 | 876  | 876   | 350                | 0        | 322                                 | 198                                       | 74                                   |
| May-88 | 560  | 560   | 224                | 0        | 334                                 | 205                                       | 77                                   |
| Jun-88 | 410  | 410   | 164                | 0        | 333                                 | 205                                       | 77                                   |
| Jul-88 | 488  | 488   | 195                | 0        | 367                                 | 226                                       | 85                                   |
| Aug-88 | 537  | 537   | 215                | 0        | 334                                 | 205                                       | 77                                   |
| Sep-88 | 531  | 531   | 212                | 0        | 367                                 | 226                                       | 85                                   |
| Oct-88 | 500  | 500   | 200                | 0        | 323                                 | 198                                       | 74                                   |
| Nov-88 | 461  | 461   | 185                | 0        | 322                                 | 198                                       | 74                                   |
| Dec-88 | 604  | 604   | 242                | 0        | 344                                 | 212                                       | 79                                   |
| Jan-89 | 570  | 570   | 228                | 0        | 356                                 | 219                                       | 82                                   |
| Feb-89 | 713  | 713   | 286                | 0        | 345                                 | 212                                       | 80                                   |
| Mar-89 | 563  | 563   | 225                | 0        | 356                                 | 219                                       | 82                                   |
| Apr-89 | 876  | 876   | 350                | 0        | 322                                 | 198                                       | 74                                   |
| May-89 | 560  | 560   | 224                | 0        | 334                                 | 205                                       | 77                                   |
| Jun-89 | 410  | 410   | 164                | 0        | 333                                 | 205                                       | 77                                   |
| Jul-89 | 488  | 488   | 195                | 0        | 367                                 | 226                                       | 85                                   |
| Aug-89 | 537  | 537   | 215                | 0        | 334                                 | 205                                       | 77                                   |
| Sep-89 | 531  | 531   | 212                | 0        | 367                                 | 226                                       | 85                                   |
| Oct-89 | 500  | 500   | 200                | 0        | 323                                 | 198                                       | 74                                   |
| Nov-89 | 461  | 461   | 185                | 0        | 322                                 | 198                                       | 74                                   |
| Dec-89 | 604  | 604   | 242                | 0        | 344                                 | 212                                       | 79                                   |

| Month  | Bergen County<br>Total Nitrogen Load (lb/d) |   |                    |          |                                    |                                      |                                    |
|--------|---|---|--------------------|----------|------------------------------------|--------------------------------------|------------------------------------|
|        | Baseline                                    | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = 11.0 (mg/L) | Medium TN Removal<br>TN = 8.0 (mg/L) | High TN Removal<br>TN = 4.5 (mg/L) |
| Jan-88 | 12904                                       | 12904   | 5170               | 0        | 6813                               | 4955                                 | 2787                               |
| Feb-88 | 13023                                       | 13023   | 5227               | 0        | 6345                               | 4614                                 | 2596                               |
| Mar-88 | 12718                                       | 12718   | 5087               | 0        | 6501                               | 4728                                 | 2659                               |
| Apr-88 | 12445                                       | 12445   | 4978               | 0        | 6005                               | 4367                                 | 2457                               |
| May-88 | 12024                                       | 12024   | 4818               | 0        | 5968                               | 4341                                 | 2442                               |
| Jun-88 | 13351                                       | 13351   | 5323               | 0        | 6106                               | 4441                                 | 2498                               |
| Jul-88 | 13234                                       | 13234   | 5303               | 0        | 5913                               | 4300                                 | 2419                               |
| Aug-88 | 11206                                       | 11206   | 4482               | 0        | 5794                               | 4214                                 | 2370                               |
| Sep-88 | 11332                                       | 11332   | 4533               | 0        | 5326                               | 3873                                 | 2179                               |
| Oct-88 | 9551  | 9551  | 3820               | 0        | 5702                               | 4147                                 | 2333                               |
| Nov-88 | 12219                                       | 12219   | 4897               | 0        | 5922                               | 4307                                 | 2423                               |
| Dec-88 | 12418                                       | 12418   | 4967               | 0        | 6648                               | 4835                                 | 2720                               |
| Jan-89 | 12921                                       | 12921   | 5177               | 0        | 6822                               | 4962                                 | 2791                               |
| Feb-89 | 13023                                       | 13023   | 5227               | 0        | 6345                               | 4614                                 | 2596                               |
| Mar-89 | 12718                                       | 12718   | 5087               | 0        | 6501                               | 4728                                 | 2659                               |
| Apr-89 | 12445                                       | 12445   | 4978               | 0        | 6005                               | 4367                                 | 2457                               |
| May-89 | 12024                                       | 12024   | 4818               | 0        | 5968                               | 4341                                 | 2442                               |
| Jun-89 | 13351                                       | 13351   | 5323               | 0        | 6106                               | 4441                                 | 2498                               |
| Jul-89 | 13234                                       | 13234   | 5303               | 0        | 5913                               | 4300                                 | 2419                               |
| Aug-89 | 11206                                       | 11206   | 4482               | 0        | 5794                               | 4214                                 | 2370                               |
| Sep-89 | 11332                                       | 11332   | 4533               | 0        | 5326                               | 3873                                 | 2179                               |
| Oct-89 | 9551  | 9551  | 3820               | 0        | 5702                               | 4147                                 | 2333                               |
| Nov-89 | 12219                                       | 12219   | 4897               | 0        | 5922                               | 4307                                 | 2423                               |
| Dec-89 | 12418                                       | 12418   | 4967               | 0        | 6648                               | 4835                                 | 2720                               |

| Month  | Bergen County<br>Total Organic Carbon Load (lb/d) |   |                    |          |                                     |   |                                      |
|--------|---|---|--------------------|----------|-------------------------------------|---|--------------------------------------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = 6.5 (mg/L) | Medium BOD<br>Removal<br>BOD = 4.0 (mg/L) | High BOD Removal<br>BOD = 1.5 (mg/L) |
| Jan-88 | 18437   | 18437   | 7376               | 0        | 8340                                | 5132                                      | 1925                                 |
| Feb-88 | 14489   | 14489   | 5794               | 0        | 7751                                | 4770                                      | 1789                                 |
| Mar-88 | 17619   | 17619   | 7046               | 0        | 7951                                | 4893                                      | 1835                                 |
| Apr-88 | 18841   | 18841   | 7531               | 0        | 7346                                | 4520                                      | 1695                                 |
| May-88 | 19599   | 19599   | 7840               | 0        | 7293                                | 4488                                      | 1683                                 |
| Jun-88 | 21782   | 21782   | 8713               | 0        | 7466                                | 4595                                      | 1723                                 |
| Jul-88 | 17716   | 17716   | 7086               | 0        | 7225                                | 4446                                      | 1667                                 |
| Aug-88 | 16539   | 16539   | 6618               | 0        | 7085                                | 4360                                      | 1635                                 |
| Sep-88 | 15979   | 15979   | 6398               | 0        | 6508                                | 4005                                      | 1502                                 |
| Oct-88 | 14643   | 14643   | 5860               | 0        | 6970                                | 4289                                      | 1609                                 |
| Nov-88 | 14370   | 14370   | 5750               | 0        | 7238                                | 4454                                      | 1670                                 |
| Dec-88 | 16116   | 16116   | 6451               | 0        | 8124                                | 5000                                      | 1875                                 |
| Jan-89 | 18462   | 18462   | 7385               | 0        | 8351                                | 5139                                      | 1927                                 |
| Feb-89 | 14489   | 14489   | 5794               | 0        | 7751                                | 4770                                      | 1789                                 |
| Mar-89 | 17619   | 17619   | 7046               | 0        | 7951                                | 4893                                      | 1835                                 |
| Apr-89 | 18841   | 18841   | 7531               | 0        | 7346                                | 4520                                      | 1695                                 |
| May-89 | 19599   | 19599   | 7840               | 0        | 7293                                | 4488                                      | 1683                                 |
| Jun-89 | 21782   | 21782   | 8713               | 0        | 7466                                | 4595                                      | 1723                                 |
| Jul-89 | 17716   | 17716   | 7086               | 0        | 7225                                | 4446                                      | 1667                                 |
| Aug-89 | 16539   | 16539   | 6618               | 0        | 7085                                | 4360                                      | 1635                                 |
| Sep-89 | 15979   | 15979   | 6398               | 0        | 6508                                | 4005                                      | 1502                                 |
| Oct-89 | 14643   | 14643   | 5860               | 0        | 6970                                | 4289                                      | 1609                                 |
| Nov-89 | 14370   | 14370   | 5750               | 0        | 7238                                | 4454                                      | 1670                                 |
| Dec-89 | 16116   | 16116   | 6451               | 0        | 8124                                | 5000                                      | 1875                                 |

| Month  | Port Richmond<br>Total Nitrogen Load (lb/d) |   |                    |          |                                   |                                      |                                    |  |
|--------|---|---|--------------------|----------|-----------------------------------|--------------------------------------|------------------------------------|--|
|        | Baseline                                    | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = N/A (mg/L) | Medium TN Removal<br>TN = N/A (mg/L) | High TN Removal<br>TN = N/A (mg/L) |  |
| Jan-88 | 3168  | 3168  | 1266               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Feb-88 | 3549  | 3549  | 1419               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Mar-88 | 2655  | 2655  | 1061               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Apr-88 | 3625  | 3625  | 1450               | 0        | N/A                               | N/A                                  | N/A                                |  |
| May-88 | 3471  | 3471  | 1390               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jun-88 | 2877  | 2877  | 1152               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jul-88 | 2280  | 2280  | 914                | 0        | N/A                               | N/A                                  | N/A                                |  |
| Aug-88 | 2936  | 2936  | 1176               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Sep-88 | 3937  | 3937  | 1574               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Oct-88 | 2649  | 2649  | 1062               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Nov-88 | 2723  | 2723  | 1089               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Dec-88 | 2973  | 2973  | 1191               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jan-89 | 3172  | 3172  | 1268               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Feb-89 | 3549  | 3549  | 1419               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Mar-89 | 2655  | 2655  | 1061               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Apr-89 | 3625  | 3625  | 1450               | 0        | N/A                               | N/A                                  | N/A                                |  |
| May-89 | 3471  | 3471  | 1390               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jun-89 | 2877  | 2877  | 1152               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jul-89 | 2280  | 2280  | 914                | 0        | N/A                               | N/A                                  | N/A                                |  |
| Aug-89 | 2936  | 2936  | 1176               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Sep-89 | 3937  | 3937  | 1574               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Oct-89 | 2649  | 2649  | 1062               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Nov-89 | 2723  | 2723  | 1089               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Dec-89 | 2973  | 2973  | 1191               | 0        | N/A                               | N/A                                  | N/A                                |  |



| Month  | Port Richmond<br>Total Organic Carbon Load (lb/d) |   |                    |          |                                     |   |                                      |  |
|--------|---|---|--------------------|----------|-------------------------------------|---|--------------------------------------|--|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = N/A (mg/L) | Medium BOD<br>Removal<br>BOD = N/A (mg/L) | High BOD Removal<br>BOD = N/A (mg/L) |  |
| Jan-88 | 3477  | 3477  | 1391               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Feb-88 | 3486  | 3486  | 1393               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Mar-88 | 2594  | 2594  | 1038               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Apr-88 | 4126  | 4126  | 1650               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| May-88 | 3252  | 3252  | 1299               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jun-88 | 2319  | 2319  | 927                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jul-88 | 2426  | 2426  | 970                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Aug-88 | 2952  | 2952  | 1179               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Sep-88 | 2319  | 2319  | 927                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Oct-88 | 1650  | 1650  | 660                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Nov-88 | 1675  | 1675  | 670                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Dec-88 | 2546  | 2546  | 1019               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jan-89 | 3482  | 3482  | 1392               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Feb-89 | 3486  | 3486  | 1393               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Mar-89 | 2594  | 2594  | 1038               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Apr-89 | 4126  | 4126  | 1650               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| May-89 | 3252  | 3252  | 1299               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jun-89 | 2319  | 2319  | 927                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jul-89 | 2426  | 2426  | 970                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Aug-89 | 2952  | 2952  | 1179               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Sep-89 | 2319  | 2319  | 927                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Oct-89 | 1650  | 1650  | 660                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Nov-89 | 1675  | 1675  | 670                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Dec-89 | 2546  | 2546  | 1019               | 0        | N/A                                 | N/A                                       | N/A                                  |  |

| Month  | Linden Roselle<br>Total Nitrogen Load (lb/d) |   |                    |          |                                    |                                      |                                    |
|--------|--|---|--------------------|----------|------------------------------------|--------------------------------------|------------------------------------|
|        | Baseline                                     | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = 11.0 (mg/L) | Medium TN Removal<br>TN = 8.0 (mg/L) | High TN Removal<br>TN = 4.5 (mg/L) |
| Jan-88 | 10247  | 10247   | 4099               | 0        | 1183                               | 860                                  | 484                                |
| Feb-88 | 13771  | 13771   | 5491               | 0        | 1194                               | 868                                  | 488                                |
| Mar-88 | 11385  | 11385   | 4545               | 0        | 1313                               | 955                                  | 537                                |
| Apr-88 | 7695   | 7695  | 3078               | 0        | 1322                               | 962                                  | 541                                |
| May-88 | 6391   | 6391  | 2556               | 0        | 1102                               | 801                                  | 451                                |
| Jun-88 | 6120   | 6120  | 2448               | 0        | 1056                               | 768                                  | 432                                |
| Jul-88 | 5220   | 5220  | 2088               | 0        | 1194                               | 868                                  | 488                                |
| Aug-88 | 7201   | 7201  | 2880               | 0        | 992                                | 721                                  | 406                                |
| Sep-88 | 5896   | 5896  | 2358               | 0        | 1019                               | 741                                  | 417                                |
| Oct-88 | 2817   | 2817  | 1125               | 0        | 973                                | 708                                  | 398                                |
| Nov-88 | 2993   | 2993  | 1197               | 0        | 1038                               | 755                                  | 424                                |
| Dec-88 | 6255   | 6255  | 2502               | 0        | 1074                               | 781                                  | 439                                |
| Jan-89 | 10260  | 10260   | 4104               | 0        | 1184                               | 861                                  | 485                                |
| Feb-89 | 13771  | 13771   | 5491               | 0        | 1194                               | 868                                  | 488                                |
| Mar-89 | 11385  | 11385   | 4545               | 0        | 1313                               | 955                                  | 537                                |
| Apr-89 | 7695   | 7695  | 3078               | 0        | 1322                               | 962                                  | 541                                |
| May-89 | 6391   | 6391  | 2556               | 0        | 1102                               | 801                                  | 451                                |
| Jun-89 | 6120   | 6120  | 2448               | 0        | 1056                               | 768                                  | 432                                |
| Jul-89 | 5220   | 5220  | 2088               | 0        | 1194                               | 868                                  | 488                                |
| Aug-89 | 7201   | 7201  | 2880               | 0        | 992                                | 721                                  | 406                                |
| Sep-89 | 5896   | 5896  | 2358               | 0        | 1019                               | 741                                  | 417                                |
| Oct-89 | 2817   | 2817  | 1125               | 0        | 973                                | 708                                  | 398                                |
| Nov-89 | 2993   | 2993  | 1197               | 0        | 1038                               | 755                                  | 424                                |
| Dec-89 | 6255   | 6255  | 2502               | 0        | 1074                               | 781                                  | 439                                |

| Month  | Linden Roselle<br>Total Organic Carbon Load (lb/d) |   |                    |          |                                     |   |                                      |
|--------|--|---|--------------------|----------|-------------------------------------|---|--------------------------------------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = 6.5 (mg/L) | Medium BOD<br>Removal<br>BOD = 4.0 (mg/L) | High BOD Removal<br>BOD = 1.5 (mg/L) |
| Jan-88 | 2464   | 2464  | 985                | 0        | 1295                                | 797                                       | 299                                  |
| Feb-88 | 3320   | 3320  | 1327               | 0        | 1307                                | 804                                       | 302                                  |
| Mar-88 | 2739   | 2739  | 1095               | 0        | 1437                                | 884                                       | 332                                  |
| Apr-88 | 1847   | 1847  | 738                | 0        | 1448                                | 891                                       | 334                                  |
| May-88 | 1541   | 1541  | 616                | 0        | 1206                                | 742                                       | 278                                  |
| Jun-88 | 1471   | 1471  | 588                | 0        | 1156                                | 711                                       | 267                                  |
| Jul-88 | 1254   | 1254  | 501                | 0        | 1305                                | 803                                       | 301                                  |
| Aug-88 | 1732   | 1732  | 693                | 0        | 1085                                | 668                                       | 250                                  |
| Sep-88 | 1425   | 1425  | 570                | 0        | 1115                                | 686                                       | 257                                  |
| Oct-88 | 678  | 678   | 272                | 0        | 1065                                | 655                                       | 246                                  |
| Nov-88 | 720  | 720   | 288                | 0        | 1136                                | 699                                       | 262                                  |
| Dec-88 | 1503   | 1503  | 601                | 0        | 1175                                | 723                                       | 271                                  |
| Jan-89 | 2467   | 2467  | 987                | 0        | 1296                                | 798                                       | 299                                  |
| Feb-89 | 3320   | 3320  | 1327               | 0        | 1307                                | 804                                       | 302                                  |
| Mar-89 | 2739   | 2739  | 1095               | 0        | 1437                                | 884                                       | 332                                  |
| Apr-89 | 1847   | 1847  | 738                | 0        | 1448                                | 891                                       | 334                                  |
| May-89 | 1541   | 1541  | 616                | 0        | 1206                                | 742                                       | 278                                  |
| Jun-89 | 1471   | 1471  | 588                | 0        | 1156                                | 711                                       | 267                                  |
| Jul-89 | 1254   | 1254  | 501                | 0        | 1305                                | 803                                       | 301                                  |
| Aug-89 | 1732   | 1732  | 693                | 0        | 1085                                | 668                                       | 250                                  |
| Sep-89 | 1425   | 1425  | 570                | 0        | 1115                                | 686                                       | 257                                  |
| Oct-89 | 678  | 678   | 272                | 0        | 1065                                | 655                                       | 246                                  |
| Nov-89 | 720  | 720   | 288                | 0        | 1136                                | 699                                       | 262                                  |
| Dec-89 | 1503   | 1503  | 601                | 0        | 1175                                | 723                                       | 271                                  |

| Month  | Jnt Meeting Essex Union<br>Total Nitrogen Load (lb/d) |   |                    |          |                                    |                                      |                                    |
|--------|---|---|--------------------|----------|------------------------------------|--------------------------------------|------------------------------------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = 11.0 (mg/L) | Medium TN Removal<br>TN = 8.0 (mg/L) | High TN Removal<br>TN = 4.5 (mg/L) |
| Jan-88 | 5094  | 5094  | 2038               | 0        | 5392                               | 3921                                 | 2206                               |
| Feb-88 | 9010  | 9010  | 3605               | 0        | 5730                               | 4167                                 | 2344                               |
| Mar-88 | 10203   | 10203   | 4082               | 0        | 5711                               | 4154                                 | 2336                               |
| Apr-88 | 11596   | 11596   | 4640               | 0        | 4931                               | 3586                                 | 2017                               |
| May-88 | 13523   | 13523   | 5411               | 0        | 4830                               | 3513                                 | 1976                               |
| Jun-88 | 13186   | 13186   | 5273               | 0        | 4536                               | 3299                                 | 1856                               |
| Jul-88 | 13417   | 13417   | 5366               | 0        | 4830                               | 3513                                 | 1976                               |
| Aug-88 | 14037   | 14037   | 5616               | 0        | 5169                               | 3760                                 | 2115                               |
| Sep-88 | 12457   | 12457   | 4985               | 0        | 5307                               | 3860                                 | 2171                               |
| Oct-88 | 4304  | 4304  | 1719               | 0        | 5270                               | 3833                                 | 2156                               |
| Nov-88 | 4224  | 4224  | 1692               | 0        | 5674                               | 4127                                 | 2321                               |
| Dec-88 | 7311  | 7311  | 2925               | 0        | 6078                               | 4421                                 | 2487                               |
| Jan-89 | 5101  | 5101  | 2041               | 0        | 5399                               | 3927                                 | 2209                               |
| Feb-89 | 9010  | 9010  | 3605               | 0        | 5730                               | 4167                                 | 2344                               |
| Mar-89 | 10203   | 10203   | 4082               | 0        | 5711                               | 4154                                 | 2336                               |
| Apr-89 | 11596   | 11596   | 4640               | 0        | 4931                               | 3586                                 | 2017                               |
| May-89 | 13523   | 13523   | 5411               | 0        | 4830                               | 3513                                 | 1976                               |
| Jun-89 | 13186   | 13186   | 5273               | 0        | 4536                               | 3299                                 | 1856                               |
| Jul-89 | 13417   | 13417   | 5366               | 0        | 4830                               | 3513                                 | 1976                               |
| Aug-89 | 14037   | 14037   | 5616               | 0        | 5169                               | 3760                                 | 2115                               |
| Sep-89 | 12457   | 12457   | 4985               | 0        | 5307                               | 3860                                 | 2171                               |
| Oct-89 | 4304  | 4304  | 1719               | 0        | 5270                               | 3833                                 | 2156                               |
| Nov-89 | 4224  | 4224  | 1692               | 0        | 5674                               | 4127                                 | 2321                               |
| Dec-89 | 7311  | 7311  | 2925               | 0        | 6078                               | 4421                                 | 2487                               |

| Jnt Meeting Essex Union<br>Total Organic Carbon Load (lb/d) |          |   |                    |          |                                     |   |                                      |  |
|---|----------|---|--------------------|----------|-------------------------------------|---|--------------------------------------|--|
| Month   | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = 6.5 (mg/L) | Medium BOD<br>Removal<br>BOD = 4.0 (mg/L) | High BOD Removal<br>BOD = 1.5 (mg/L) |  |
| Jan-88  | 12347    | 12347   | 4941               | 0        | 7228                                | 4448                                      | 1668                                 |  |
| Feb-88  | 9537     | 9537  | 3814               | 0        | 7682                                | 4728                                      | 1773                                 |  |
| Mar-88  | 13060    | 13060   | 5225               | 0        | 7655                                | 4711                                      | 1767                                 |  |
| Apr-88  | 10260    | 10260   | 4101               | 0        | 6613                                | 4070                                      | 1526                                 |  |
| May-88  | 4771     | 4771  | 1907               | 0        | 6475                                | 3985                                      | 1494                                 |  |
| Jun-88  | 5185     | 5185  | 2074               | 0        | 6083                                | 3743                                      | 1404                                 |  |
| Jul-88  | 4515     | 4515  | 1807               | 0        | 6470                                | 3982                                      | 1493                                 |  |
| Aug-88  | 5917     | 5917  | 2366               | 0        | 6932                                | 4266                                      | 1600                                 |  |
| Sep-88  | 3862     | 3862  | 1544               | 0        | 7115                                | 4379                                      | 1642                                 |  |
| Oct-88  | 13713    | 13713   | 5481               | 0        | 7066                                | 4348                                      | 1631                                 |  |
| Nov-88  | 15327    | 15327   | 6129               | 0        | 7606                                | 4680                                      | 1755                                 |  |
| Dec-88  | 18329    | 18329   | 7328               | 0        | 8153                                | 5017                                      | 1881                                 |  |
| Jan-89  | 12364    | 12364   | 4947               | 0        | 7238                                | 4454                                      | 1670                                 |  |
| Feb-89  | 9537     | 9537  | 3814               | 0        | 7682                                | 4728                                      | 1773                                 |  |
| Mar-89  | 13060    | 13060   | 5225               | 0        | 7655                                | 4711                                      | 1767                                 |  |
| Apr-89  | 10260    | 10260   | 4101               | 0        | 6613                                | 4070                                      | 1526                                 |  |
| May-89  | 4771     | 4771  | 1907               | 0        | 6475                                | 3985                                      | 1494                                 |  |
| Jun-89  | 5185     | 5185  | 2074               | 0        | 6083                                | 3743                                      | 1404                                 |  |
| Jul-89  | 4515     | 4515  | 1807               | 0        | 6470                                | 3982                                      | 1493                                 |  |
| Aug-89  | 5917     | 5917  | 2366               | 0        | 6932                                | 4266                                      | 1600                                 |  |
| Sep-89  | 3862     | 3862  | 1544               | 0        | 7115                                | 4379                                      | 1642                                 |  |
| Oct-89  | 13713    | 13713   | 5481               | 0        | 7066                                | 4348                                      | 1631                                 |  |
| Nov-89  | 15327    | 15327   | 6129               | 0        | 7606                                | 4680                                      | 1755                                 |  |
| Dec-89  | 18329    | 18329   | 7328               | 0        | 8153                                | 5017                                      | 1881                                 |  |

| Month  | Rahway<br>Total Nitrogen Load (lb/d) |   |                    |          |                                    |                                      |                                    |
|--------|--------------------------------------|---|--------------------|----------|------------------------------------|--------------------------------------|------------------------------------|
|        | Baseline                             | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = 11.0 (mg/L) | Medium TN Removal<br>TN = 8.0 (mg/L) | High TN Removal<br>TN = 4.5 (mg/L) |
| Jan-88 | 2977                                 | 2977  | 1193               | 0        | 2494                               | 1814                                 | 1020                               |
| Feb-88 | 4424                                 | 4424  | 1768               | 0        | 2461                               | 1790                                 | 1007                               |
| Mar-88 | 3966                                 | 3966  | 1588               | 0        | 2654                               | 1930                                 | 1086                               |
| Apr-88 | 4021                                 | 4021  | 1609               | 0        | 2314                               | 1683                                 | 947                                |
| May-88 | 3847                                 | 3847  | 1537               | 0        | 2250                               | 1636                                 | 920                                |
| Jun-88 | 3423                                 | 3423  | 1371               | 0        | 2250                               | 1636                                 | 920                                |
| Jul-88 | 3498                                 | 3498  | 1399               | 0        | 2396                               | 1743                                 | 980                                |
| Aug-88 | 4056                                 | 4056  | 1623               | 0        | 2167                               | 1576                                 | 886                                |
| Sep-88 | 3453                                 | 3453  | 1380               | 0        | 2130                               | 1549                                 | 871                                |
| Oct-88 | 2782                                 | 2782  | 1115               | 0        | 2093                               | 1523                                 | 856                                |
| Nov-88 | 3144                                 | 3144  | 1257               | 0        | 2139                               | 1556                                 | 875                                |
| Dec-88 | 5783                                 | 5783  | 2310               | 0        | 2323                               | 1689                                 | 950                                |
| Jan-89 | 2981                                 | 2981  | 1194               | 0        | 2497                               | 1816                                 | 1022                               |
| Feb-89 | 4424                                 | 4424  | 1768               | 0        | 2461                               | 1790                                 | 1007                               |
| Mar-89 | 3966                                 | 3966  | 1588               | 0        | 2654                               | 1930                                 | 1086                               |
| Apr-89 | 4021                                 | 4021  | 1609               | 0        | 2314                               | 1683                                 | 947                                |
| May-89 | 3847                                 | 3847  | 1537               | 0        | 2250                               | 1636                                 | 920                                |
| Jun-89 | 3423                                 | 3423  | 1371               | 0        | 2250                               | 1636                                 | 920                                |
| Jul-89 | 3498                                 | 3498  | 1399               | 0        | 2396                               | 1743                                 | 980                                |
| Aug-89 | 4056                                 | 4056  | 1623               | 0        | 2167                               | 1576                                 | 886                                |
| Sep-89 | 3453                                 | 3453  | 1380               | 0        | 2130                               | 1549                                 | 871                                |
| Oct-89 | 2782                                 | 2782  | 1115               | 0        | 2093                               | 1523                                 | 856                                |
| Nov-89 | 3144                                 | 3144  | 1257               | 0        | 2139                               | 1556                                 | 875                                |
| Dec-89 | 5783                                 | 5783  | 2310               | 0        | 2323                               | 1689                                 | 950                                |

| Month  | Rahway<br>Total Organic Carbon Load (lb/d) |   |                    |          |                                     |   |                                      |
|--------|--|---|--------------------|----------|-------------------------------------|---|--------------------------------------|
|        | Baseline                                   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = 6.2 (mg/L) | Medium BOD<br>Removal<br>BOD = 4.0 (mg/L) | High BOD Removal<br>BOD = 1.5 (mg/L) |
| Jan-88 | 4513                                       | 4513  | 1803               | 0        | 3143                                | 2028                                      | 761                                  |
| Feb-88 | 6711                                       | 6711  | 2686               | 0        | 3103                                | 2002                                      | 751                                  |
| Mar-88 | 6010                                       | 6010  | 2402               | 0        | 3347                                | 2159                                      | 810                                  |
| Apr-88 | 6098                                       | 6098  | 2443               | 0        | 2917                                | 1882                                      | 706                                  |
| May-88 | 5833                                       | 5833  | 2332               | 0        | 2836                                | 1829                                      | 686                                  |
| Jun-88 | 5190                                       | 5190  | 2075               | 0        | 2834                                | 1829                                      | 686                                  |
| Jul-88 | 5296                                       | 5296  | 2117               | 0        | 3020                                | 1948                                      | 731                                  |
| Aug-88 | 6142                                       | 6142  | 2459               | 0        | 2732                                | 1763                                      | 661                                  |
| Sep-88 | 5225                                       | 5225  | 2089               | 0        | 2685                                | 1732                                      | 650                                  |
| Oct-88 | 4215                                       | 4215  | 1683               | 0        | 2638                                | 1702                                      | 638                                  |
| Nov-88 | 4766                                       | 4766  | 1907               | 0        | 2697                                | 1740                                      | 652                                  |
| Dec-88 | 8766                                       | 8766  | 3510               | 0        | 2928                                | 1889                                      | 708                                  |
| Jan-89 | 4519                                       | 4519  | 1805               | 0        | 3148                                | 2031                                      | 762                                  |
| Feb-89 | 6711                                       | 6711  | 2686               | 0        | 3103                                | 2002                                      | 751                                  |
| Mar-89 | 6010                                       | 6010  | 2402               | 0        | 3347                                | 2159                                      | 810                                  |
| Apr-89 | 6098                                       | 6098  | 2443               | 0        | 2917                                | 1882                                      | 706                                  |
| May-89 | 5833                                       | 5833  | 2332               | 0        | 2836                                | 1829                                      | 686                                  |
| Jun-89 | 5190                                       | 5190  | 2075               | 0        | 2834                                | 1829                                      | 686                                  |
| Jul-89 | 5296                                       | 5296  | 2117               | 0        | 3020                                | 1948                                      | 731                                  |
| Aug-89 | 6142                                       | 6142  | 2459               | 0        | 2732                                | 1763                                      | 661                                  |
| Sep-89 | 5225                                       | 5225  | 2089               | 0        | 2685                                | 1732                                      | 650                                  |
| Oct-89 | 4215                                       | 4215  | 1683               | 0        | 2638                                | 1702                                      | 638                                  |
| Nov-89 | 4766                                       | 4766  | 1907               | 0        | 2697                                | 1740                                      | 652                                  |
| Dec-89 | 8766                                       | 8766  | 3510               | 0        | 2928                                | 1889                                      | 708                                  |

| Month  | Oakwood Beach<br>Total Nitrogen Load (lb/d) |   |                    |          |                                   |                                      |                                    |  |
|--------|---|---|--------------------|----------|-----------------------------------|--------------------------------------|------------------------------------|--|
|        | Baseline                                    | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = N/A (mg/L) | Medium TN Removal<br>TN = N/A (mg/L) | High TN Removal<br>TN = N/A (mg/L) |  |
| Jan-88 | 3293  | 3293  | 1316               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Feb-88 | 3120  | 3120  | 1246               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Mar-88 | 3494  | 3494  | 1400               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Apr-88 | 4813  | 4813  | 1925               | 0        | N/A                               | N/A                                  | N/A                                |  |
| May-88 | 3714  | 3714  | 1485               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jun-88 | 6201  | 6201  | 2481               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jul-88 | 6321  | 6321  | 2527               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Aug-88 | 5586  | 5586  | 2234               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Sep-88 | 7214  | 7214  | 2884               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Oct-88 | 2888  | 2888  | 1154               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Nov-88 | 3202  | 3202  | 1282               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Dec-88 | 3886  | 3886  | 1555               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jan-89 | 3298  | 3298  | 1318               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Feb-89 | 3120  | 3120  | 1246               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Mar-89 | 3494  | 3494  | 1400               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Apr-89 | 4813  | 4813  | 1925               | 0        | N/A                               | N/A                                  | N/A                                |  |
| May-89 | 3714  | 3714  | 1485               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jun-89 | 6201  | 6201  | 2481               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jul-89 | 6321  | 6321  | 2527               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Aug-89 | 5586  | 5586  | 2234               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Sep-89 | 7214  | 7214  | 2884               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Oct-89 | 2888  | 2888  | 1154               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Nov-89 | 3202  | 3202  | 1282               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Dec-89 | 3886  | 3886  | 1555               | 0        | N/A                               | N/A                                  | N/A                                |  |



| Month  | Oakwood Beach<br>Total Organic Carbon Load (lb/d) |   |                    |          |                                     |   |                                      |  |
|--------|---|---|--------------------|----------|-------------------------------------|---|--------------------------------------|--|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = N/A (mg/L) | Medium BOD<br>Removal<br>BOD = N/A (mg/L) | High BOD Removal<br>BOD = N/A (mg/L) |  |
| Jan-88 | 2803  | 2803  | 1121               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Feb-88 | 3059  | 3059  | 1224               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Mar-88 | 3069  | 3069  | 1228               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Apr-88 | 3112  | 3112  | 1245               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| May-88 | 3015  | 3015  | 1206               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jun-88 | 3010  | 3010  | 1204               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jul-88 | 2623  | 2623  | 1049               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Aug-88 | 2623  | 2623  | 1049               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Sep-88 | 2130  | 2130  | 852                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Oct-88 | 2054  | 2054  | 822                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Nov-88 | 2556  | 2556  | 1022               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Dec-88 | 2404  | 2404  | 962                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jan-89 | 2807  | 2807  | 1123               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Feb-89 | 3059  | 3059  | 1224               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Mar-89 | 3069  | 3069  | 1228               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Apr-89 | 3112  | 3112  | 1245               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| May-89 | 3015  | 3015  | 1206               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jun-89 | 3010  | 3010  | 1204               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jul-89 | 2623  | 2623  | 1049               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Aug-89 | 2623  | 2623  | 1049               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Sep-89 | 2130  | 2130  | 852                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Oct-89 | 2054  | 2054  | 822                | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Nov-89 | 2556  | 2556  | 1022               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Dec-89 | 2404  | 2404  | 962                | 0        | N/A                                 | N/A                                       | N/A                                  |  |

| Middlesex County<br>Total Nitrogen Load (lb/d) |          |   |                    |          |                                    |                                       |                                    |  |
|--|----------|---|--------------------|----------|------------------------------------|---------------------------------------|------------------------------------|--|
| Month  | Baseline | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = 20.0 (mg/L) | Medium TN Removal<br>TN = 11.0 (mg/L) | High TN Removal<br>TN = 4.0 (mg/L) |  |
| Jan-88   | 30722    | 30722   | 12299              | 0        | 20573                              | 11315                                 | 4115                               |  |
| Feb-88   | 37483    | 37483   | 14996              | 0        | 19532                              | 10743                                 | 3906                               |  |
| Mar-88   | 32714    | 32714   | 13095              | 0        | 20050                              | 11027                                 | 4010                               |  |
| Apr-88   | 29056    | 29056   | 11632              | 0        | 17212                              | 9467                                  | 3442                               |  |
| May-88   | 27065    | 27065   | 10807              | 0        | 16928                              | 9310                                  | 3386                               |  |
| Jun-88   | 29546    | 29546   | 11828              | 0        | 16377                              | 9007                                  | 3275                               |  |
| Jul-88   | 26675    | 26675   | 10663              | 0        | 17796                              | 9788                                  | 3559                               |  |
| Aug-88   | 27938    | 27938   | 11191              | 0        | 16227                              | 8925                                  | 3245                               |  |
| Sep-88   | 27992    | 27992   | 11198              | 0        | 16928                              | 9310                                  | 3386                               |  |
| Oct-88   | 32714    | 32714   | 13095              | 0        | 16628                              | 9145                                  | 3326                               |  |
| Nov-88   | 32762    | 32762   | 13100              | 0        | 18013                              | 9907                                  | 3603                               |  |
| Dec-88   | 35436    | 35436   | 14165              | 0        | 19165                              | 10541                                 | 3833                               |  |
| Jan-89   | 30763    | 30763   | 12316              | 0        | 20601                              | 11331                                 | 4120                               |  |
| Feb-89   | 37483    | 37483   | 14996              | 0        | 19532                              | 10743                                 | 3906                               |  |
| Mar-89   | 32714    | 32714   | 13095              | 0        | 20050                              | 11027                                 | 4010                               |  |
| Apr-89   | 29056    | 29056   | 11632              | 0        | 17212                              | 9467                                  | 3442                               |  |
| May-89   | 27065    | 27065   | 10807              | 0        | 16928                              | 9310                                  | 3386                               |  |
| Jun-89   | 29546    | 29546   | 11828              | 0        | 16377                              | 9007                                  | 3275                               |  |
| Jul-89   | 26675    | 26675   | 10663              | 0        | 17796                              | 9788                                  | 3559                               |  |
| Aug-89   | 27938    | 27938   | 11191              | 0        | 16227                              | 8925                                  | 3245                               |  |
| Sep-89   | 27992    | 27992   | 11198              | 0        | 16928                              | 9310                                  | 3386                               |  |
| Oct-89   | 32714    | 32714   | 13095              | 0        | 16628                              | 9145                                  | 3326                               |  |
| Nov-89   | 32762    | 32762   | 13100              | 0        | 18013                              | 9907                                  | 3603                               |  |
| Dec-89   | 35436    | 35436   | 14165              | 0        | 19165                              | 10541                                 | 3833                               |  |

| Month  | Middlesex County<br>Total Organic Carbon Load (lb/d) |   |                    |          |                                     |   |                                      |
|--------|--|---|--------------------|----------|-------------------------------------|---|--------------------------------------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = 6.5 (mg/L) | Medium BOD<br>Removal<br>BOD = 4.0 (mg/L) | High BOD Removal<br>BOD = 1.5 (mg/L) |
| Jan-88 | 38181  | 38181   | 15280              | 0        | 12915                               | 7948                                      | 2980                                 |
| Feb-88 | 33819  | 33819   | 13528              | 0        | 12269                               | 7550                                      | 2831                                 |
| Mar-88 | 44661  | 44661   | 17866              | 0        | 12590                               | 7748                                      | 2905                                 |
| Apr-88 | 51134  | 51134   | 20446              | 0        | 10815                               | 6655                                      | 2496                                 |
| May-88 | 29269  | 29269   | 11707              | 0        | 10621                               | 6536                                      | 2451                                 |
| Jun-88 | 22306  | 22306   | 8924               | 0        | 10279                               | 6326                                      | 2372                                 |
| Jul-88 | 28682  | 28682   | 11473              | 0        | 11187                               | 6884                                      | 2582                                 |
| Aug-88 | 24110  | 24110   | 9643               | 0        | 10183                               | 6267                                      | 2350                                 |
| Sep-88 | 31376  | 31376   | 12549              | 0        | 10629                               | 6541                                      | 2453                                 |
| Oct-88 | 18497  | 18497   | 7403               | 0        | 10448                               | 6429                                      | 2411                                 |
| Nov-88 | 26769  | 26769   | 10706              | 0        | 11305                               | 6957                                      | 2609                                 |
| Dec-88 | 56967  | 56967   | 22796              | 0        | 12032                               | 7404                                      | 2777                                 |
| Jan-89 | 38233  | 38233   | 15300              | 0        | 12933                               | 7959                                      | 2984                                 |
| Feb-89 | 33819  | 33819   | 13528              | 0        | 12269                               | 7550                                      | 2831                                 |
| Mar-89 | 44661  | 44661   | 17866              | 0        | 12590                               | 7748                                      | 2905                                 |
| Apr-89 | 51134  | 51134   | 20446              | 0        | 10815                               | 6655                                      | 2496                                 |
| May-89 | 29269  | 29269   | 11707              | 0        | 10621                               | 6536                                      | 2451                                 |
| Jun-89 | 22306  | 22306   | 8924               | 0        | 10279                               | 6326                                      | 2372                                 |
| Jul-89 | 28682  | 28682   | 11473              | 0        | 11187                               | 6884                                      | 2582                                 |
| Aug-89 | 24110  | 24110   | 9643               | 0        | 10183                               | 6267                                      | 2350                                 |
| Sep-89 | 31376  | 31376   | 12549              | 0        | 10629                               | 6541                                      | 2453                                 |
| Oct-89 | 18497  | 18497   | 7403               | 0        | 10448                               | 6429                                      | 2411                                 |
| Nov-89 | 26769  | 26769   | 10706              | 0        | 11305                               | 6957                                      | 2609                                 |
| Dec-89 | 56967  | 56967   | 22796              | 0        | 12032                               | 7404                                      | 2777                                 |

| Month  | North River<br>Total Nitrogen Load (lb/d) |   |                    |          |                                   |                                      |                                    |  |
|--------|---|---|--------------------|----------|-----------------------------------|--------------------------------------|------------------------------------|--|
|        | Baseline                                  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = N/A (mg/L) | Medium TN Removal<br>TN = N/A (mg/L) | High TN Removal<br>TN = N/A (mg/L) |  |
| Jan-88 | 25745                                     | 25745   | 10298              | 0        | N/A                               | N/A                                  | N/A                                |  |
| Feb-88 | 20754                                     | 20754   | 8318               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Mar-88 | 19196                                     | 19196   | 7673               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Apr-88 | 22412                                     | 22412   | 8951               | 0        | N/A                               | N/A                                  | N/A                                |  |
| May-88 | 22731                                     | 22731   | 9074               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jun-88 | 23351                                     | 23351   | 9348               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jul-88 | 26256                                     | 26256   | 10512              | 0        | N/A                               | N/A                                  | N/A                                |  |
| Aug-88 | 26010                                     | 26010   | 10422              | 0        | N/A                               | N/A                                  | N/A                                |  |
| Sep-88 | 26363                                     | 26363   | 10553              | 0        | N/A                               | N/A                                  | N/A                                |  |
| Oct-88 | 26168                                     | 26168   | 10486              | 0        | N/A                               | N/A                                  | N/A                                |  |
| Nov-88 | 29670                                     | 29670   | 11875              | 0        | N/A                               | N/A                                  | N/A                                |  |
| Dec-88 | 21656                                     | 21656   | 8663               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jan-89 | 25780                                     | 25780   | 10312              | 0        | N/A                               | N/A                                  | N/A                                |  |
| Feb-89 | 20754                                     | 20754   | 8318               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Mar-89 | 19196                                     | 19196   | 7673               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Apr-89 | 22412                                     | 22412   | 8951               | 0        | N/A                               | N/A                                  | N/A                                |  |
| May-89 | 22731                                     | 22731   | 9074               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jun-89 | 23351                                     | 23351   | 9348               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jul-89 | 26256                                     | 26256   | 10512              | 0        | N/A                               | N/A                                  | N/A                                |  |
| Aug-89 | 26010                                     | 26010   | 10422              | 0        | N/A                               | N/A                                  | N/A                                |  |
| Sep-89 | 26363                                     | 26363   | 10553              | 0        | N/A                               | N/A                                  | N/A                                |  |
| Oct-89 | 26168                                     | 26168   | 10486              | 0        | N/A                               | N/A                                  | N/A                                |  |
| Nov-89 | 29670                                     | 29670   | 11875              | 0        | N/A                               | N/A                                  | N/A                                |  |
| Dec-89 | 21656                                     | 21656   | 8663               | 0        | N/A                               | N/A                                  | N/A                                |  |

| Month  | North River<br>Total Organic Carbon Load (lb/d) |   |                    |          |                                     |   |                                      |  |
|--------|---|---|--------------------|----------|-------------------------------------|---|--------------------------------------|--|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = N/A (mg/L) | Medium BOD<br>Removal<br>BOD = N/A (mg/L) | High BOD Removal<br>BOD = N/A (mg/L) |  |
| Jan-88 | 23470   | 23470   | 9388               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Feb-88 | 20009   | 20009   | 7998               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Mar-88 | 19136   | 19136   | 7654               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Apr-88 | 18730   | 18730   | 7496               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| May-88 | 18845   | 18845   | 7540               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jun-88 | 21156   | 21156   | 8461               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jul-88 | 22544   | 22544   | 9017               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Aug-88 | 20538   | 20538   | 8214               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Sep-88 | 25988   | 25988   | 10393              | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Oct-88 | 21998   | 21998   | 8801               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Nov-88 | 26769   | 26769   | 10706              | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Dec-88 | 33140   | 33140   | 13254              | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jan-89 | 23501   | 23501   | 9401               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Feb-89 | 20009   | 20009   | 7998               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Mar-89 | 19136   | 19136   | 7654               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Apr-89 | 18730   | 18730   | 7496               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| May-89 | 18845   | 18845   | 7540               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jun-89 | 21156   | 21156   | 8461               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jul-89 | 22544   | 22544   | 9017               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Aug-89 | 20538   | 20538   | 8214               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Sep-89 | 25988   | 25988   | 10393              | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Oct-89 | 21998   | 21998   | 8801               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Nov-89 | 26769   | 26769   | 10706              | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Dec-89 | 33140   | 33140   | 13254              | 0        | N/A                                 | N/A                                       | N/A                                  |  |

| Month  | Owls Head<br>Total Nitrogen Load (lb/d) |   |                    |          |                                   |                                      |                                    |  |
|--------|---|---|--------------------|----------|-----------------------------------|--------------------------------------|------------------------------------|--|
|        | Baseline                                | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = N/A (mg/L) | Medium TN Removal<br>TN = N/A (mg/L) | High TN Removal<br>TN = N/A (mg/L) |  |
| Jan-88 | 21242                                   | 21242   | 8505               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Feb-88 | 17361                                   | 17361   | 6935               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Mar-88 | 19054                                   | 19054   | 7616               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Apr-88 | 16118                                   | 16118   | 6466               | 0        | N/A                               | N/A                                  | N/A                                |  |
| May-88 | 15636                                   | 15636   | 6256               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jun-88 | 16163                                   | 16163   | 6465               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jul-88 | 21472                                   | 21472   | 8607               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Aug-88 | 15861                                   | 15861   | 6327               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Sep-88 | 16023                                   | 16023   | 6410               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Oct-88 | 16580                                   | 16580   | 6623               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Nov-88 | 20607                                   | 20607   | 8223               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Dec-88 | 25854                                   | 25854   | 10330              | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jan-89 | 21271                                   | 21271   | 8516               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Feb-89 | 17361                                   | 17361   | 6935               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Mar-89 | 19054                                   | 19054   | 7616               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Apr-89 | 16118                                   | 16118   | 6466               | 0        | N/A                               | N/A                                  | N/A                                |  |
| May-89 | 15636                                   | 15636   | 6256               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jun-89 | 16163                                   | 16163   | 6465               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Jul-89 | 21472                                   | 21472   | 8607               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Aug-89 | 15861                                   | 15861   | 6327               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Sep-89 | 16023                                   | 16023   | 6410               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Oct-89 | 16580                                   | 16580   | 6623               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Nov-89 | 20607                                   | 20607   | 8223               | 0        | N/A                               | N/A                                  | N/A                                |  |
| Dec-89 | 25854                                   | 25854   | 10330              | 0        | N/A                               | N/A                                  | N/A                                |  |

| Month  | Owls Head<br>Total Organic Carbon Load (lb/d) |   |                    |          |                                     |   |                                      |  |
|--------|---|---|--------------------|----------|-------------------------------------|---|--------------------------------------|--|
|        | Baseline                                      | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = N/A (mg/L) | Medium BOD<br>Removal<br>BOD = N/A (mg/L) | High BOD Removal<br>BOD = N/A (mg/L) |  |
| Jan-88 | 21264   | 21264   | 8507               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Feb-88 | 23903   | 23903   | 9564               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Mar-88 | 19502   | 19502   | 7804               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Apr-88 | 18448   | 18448   | 7381               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| May-88 | 19978   | 19978   | 7994               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jun-88 | 18598   | 18598   | 7443               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jul-88 | 19365   | 19365   | 7747               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Aug-88 | 13655   | 13655   | 5463               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Sep-88 | 13876   | 13876   | 5551               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Oct-88 | 23515   | 23515   | 9405               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Nov-88 | 48105   | 48105   | 19260              | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Dec-88 | 25825   | 25825   | 10335              | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jan-89 | 21292   | 21292   | 8519               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Feb-89 | 23903   | 23903   | 9564               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Mar-89 | 19502   | 19502   | 7804               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Apr-89 | 18448   | 18448   | 7381               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| May-89 | 19978   | 19978   | 7994               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jun-89 | 18598   | 18598   | 7443               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Jul-89 | 19365   | 19365   | 7747               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Aug-89 | 13655   | 13655   | 5463               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Sep-89 | 13876   | 13876   | 5551               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Oct-89 | 23515   | 23515   | 9405               | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Nov-89 | 48105   | 48105   | 19260              | 0        | N/A                                 | N/A                                       | N/A                                  |  |
| Dec-89 | 25825   | 25825   | 10335              | 0        | N/A                                 | N/A                                       | N/A                                  |  |

| Month  | Yonkers<br>Total Nitrogen Load (lb/d) |   |                    |          |                                   |                                      |                                    |
|--------|---------------------------------------|---|--------------------|----------|-----------------------------------|--------------------------------------|------------------------------------|
|        | Baseline                              | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = N/A (mg/L) | Medium TN Removal<br>TN = N/A (mg/L) | High TN Removal<br>TN = N/A (mg/L) |
| Jan-88 | 10816                                 | 10816   | 4326               | 0        | N/A                               | N/A                                  | N/A                                |
| Feb-88 | 11188                                 | 11188   | 4475               | 0        | N/A                               | N/A                                  | N/A                                |
| Mar-88 | 10968                                 | 10968   | 4387               | 0        | N/A                               | N/A                                  | N/A                                |
| Apr-88 | 10443                                 | 10443   | 4177               | 0        | N/A                               | N/A                                  | N/A                                |
| May-88 | 9096                                  | 9096  | 3639               | 0        | N/A                               | N/A                                  | N/A                                |
| Jun-88 | 13330                                 | 13330   | 5315               | 0        | N/A                               | N/A                                  | N/A                                |
| Jul-88 | 13148                                 | 13148   | 5251               | 0        | N/A                               | N/A                                  | N/A                                |
| Aug-88 | 10068                                 | 10068   | 4027               | 0        | N/A                               | N/A                                  | N/A                                |
| Sep-88 | 13061                                 | 13061   | 5224               | 0        | N/A                               | N/A                                  | N/A                                |
| Oct-88 | 11543                                 | 11543   | 4617               | 0        | N/A                               | N/A                                  | N/A                                |
| Nov-88 | 13606                                 | 13606   | 5442               | 0        | N/A                               | N/A                                  | N/A                                |
| Dec-88 | 8726                                  | 8726  | 3490               | 0        | N/A                               | N/A                                  | N/A                                |
| Jan-89 | 10831                                 | 10831   | 4332               | 0        | N/A                               | N/A                                  | N/A                                |
| Feb-89 | 11188                                 | 11188   | 4475               | 0        | N/A                               | N/A                                  | N/A                                |
| Mar-89 | 10968                                 | 10968   | 4387               | 0        | N/A                               | N/A                                  | N/A                                |
| Apr-89 | 10443                                 | 10443   | 4177               | 0        | N/A                               | N/A                                  | N/A                                |
| May-89 | 9096                                  | 9096  | 3639               | 0        | N/A                               | N/A                                  | N/A                                |
| Jun-89 | 13330                                 | 13330   | 5315               | 0        | N/A                               | N/A                                  | N/A                                |
| Jul-89 | 13148                                 | 13148   | 5251               | 0        | N/A                               | N/A                                  | N/A                                |
| Aug-89 | 10068                                 | 10068   | 4027               | 0        | N/A                               | N/A                                  | N/A                                |
| Sep-89 | 13061                                 | 13061   | 5224               | 0        | N/A                               | N/A                                  | N/A                                |
| Oct-89 | 11543                                 | 11543   | 4617               | 0        | N/A                               | N/A                                  | N/A                                |
| Nov-89 | 13606                                 | 13606   | 5442               | 0        | N/A                               | N/A                                  | N/A                                |
| Dec-89 | 8726                                  | 8726  | 3490               | 0        | N/A                               | N/A                                  | N/A                                |



| Month  | Yonkers<br>Total Organic Carbon Load (lb/d) |   |                    |          |                                     |   |                                      |     |
|--------|---|---|--------------------|----------|-------------------------------------|---|--------------------------------------|-----|
|        | Baseline                                    | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = N/A (mg/L) | Medium BOD<br>Removal<br>BOD = N/A (mg/L) | High BOD Removal<br>BOD = N/A (mg/L) |     |
|        | Jan-88                                      | 18921   | 18921              | 7569     | 0                                   | N/A                                       | N/A                                  | N/A |
| Feb-88 | 15860                                       | 15860   | 6345               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Mar-88 | 13506                                       | 13506   | 5401               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Apr-88 | 15022                                       | 15022   | 6010               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| May-88 | 11998                                       | 11998   | 4797               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Jun-88 | 11861                                       | 11861   | 4749               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Jul-88 | 10225                                       | 10225   | 4092               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Aug-88 | 4383  | 4383  | 1752               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Sep-88 | 6080  | 6080  | 2433               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Oct-88 | 4264  | 4264  | 1705               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Nov-88 | 9004  | 9004  | 3601               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Dec-88 | 12328                                       | 12328   | 4938               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Jan-89 | 18947                                       | 18947   | 7579               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Feb-89 | 15860                                       | 15860   | 6345               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Mar-89 | 13506                                       | 13506   | 5401               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Apr-89 | 15022                                       | 15022   | 6010               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| May-89 | 11998                                       | 11998   | 4797               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Jun-89 | 11861                                       | 11861   | 4749               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Jul-89 | 10225                                       | 10225   | 4092               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Aug-89 | 4383  | 4383  | 1752               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Sep-89 | 6080  | 6080  | 2433               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Oct-89 | 4264  | 4264  | 1705               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Nov-89 | 9004  | 9004  | 3601               | 0        | N/A                                 | N/A                                       | N/A                                  |     |
| Dec-89 | 12328                                       | 12328   | 4938               | 0        | N/A                                 | N/A                                       | N/A                                  |     |

| Month  | North Bergen Woodcliff<br>Total Nitrogen Load (lb/d) |   |                    |          |                                    |                                       |                                    |
|--------|--|---|--------------------|----------|------------------------------------|---------------------------------------|------------------------------------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = 24.5 (mg/L) | Medium TN Removal<br>TN = 11.0 (mg/L) | High TN Removal<br>TN = 4.0 (mg/L) |
| Jan-88 | 337  | 337   | 135                | 0        | 551                                | 248                                   | 90                                 |
| Feb-88 | 365  | 365   | 146                | 0        | 552                                | 248                                   | 90                                 |
| Mar-88 | 350  | 350   | 140                | 0        | 511                                | 230                                   | 83                                 |
| Apr-88 | 322  | 322   | 129                | 0        | 491                                | 220                                   | 80                                 |
| May-88 | 348  | 348   | 139                | 0        | 532                                | 239                                   | 87                                 |
| Jun-88 | 406  | 406   | 162                | 0        | 532                                | 239                                   | 87                                 |
| Jul-88 | 360  | 360   | 144                | 0        | 511                                | 230                                   | 83                                 |
| Aug-88 | 321  | 321   | 129                | 0        | 470                                | 211                                   | 77                                 |
| Sep-88 | 317  | 317   | 127                | 0        | 470                                | 211                                   | 77                                 |
| Oct-88 | 338  | 338   | 135                | 0        | 470                                | 211                                   | 77                                 |
| Nov-88 | 349  | 349   | 139                | 0        | 491                                | 220                                   | 80                                 |
| Dec-88 | 389  | 389   | 156                | 0        | 552                                | 248                                   | 90                                 |
| Jan-89 | 338  | 338   | 135                | 0        | 552                                | 248                                   | 90                                 |
| Feb-89 | 365  | 365   | 146                | 0        | 552                                | 248                                   | 90                                 |
| Mar-89 | 350  | 350   | 140                | 0        | 511                                | 230                                   | 83                                 |
| Apr-89 | 322  | 322   | 129                | 0        | 491                                | 220                                   | 80                                 |
| May-89 | 348  | 348   | 139                | 0        | 532                                | 239                                   | 87                                 |
| Jun-89 | 406  | 406   | 162                | 0        | 532                                | 239                                   | 87                                 |
| Jul-89 | 360  | 360   | 144                | 0        | 511                                | 230                                   | 83                                 |
| Aug-89 | 321  | 321   | 129                | 0        | 470                                | 211                                   | 77                                 |
| Sep-89 | 317  | 317   | 127                | 0        | 470                                | 211                                   | 77                                 |
| Oct-89 | 338  | 338   | 135                | 0        | 470                                | 211                                   | 77                                 |
| Nov-89 | 349  | 349   | 139                | 0        | 491                                | 220                                   | 80                                 |
| Dec-89 | 389  | 389   | 156                | 0        | 552                                | 248                                   | 90                                 |

| Month  | North Bergen Woodcliff<br>Total Organic Carbon Load (lb/d) |   |                    |          |                                     |   |                                      |
|--------|--|---|--------------------|----------|-------------------------------------|---|--------------------------------------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = 6.5 (mg/L) | Medium BOD<br>Removal<br>BOD = 4.0 (mg/L) | High BOD Removal<br>BOD = 1.5 (mg/L) |
| Jan-88 | 758  | 758   | 303                | 0        | 328                                 | 202                                       | 76                                   |
| Feb-88 | 1131   | 1131  | 452                | 0        | 328                                 | 202                                       | 76                                   |
| Mar-88 | 897  | 897   | 359                | 0        | 304                                 | 187                                       | 70                                   |
| Apr-88 | 807  | 807   | 323                | 0        | 292                                 | 180                                       | 67                                   |
| May-88 | 697  | 697   | 279                | 0        | 316                                 | 194                                       | 73                                   |
| Jun-88 | 589  | 589   | 236                | 0        | 316                                 | 194                                       | 73                                   |
| Jul-88 | 506  | 506   | 202                | 0        | 304                                 | 187                                       | 70                                   |
| Aug-88 | 557  | 557   | 223                | 0        | 280                                 | 172                                       | 65                                   |
| Sep-88 | 448  | 448   | 179                | 0        | 279                                 | 172                                       | 64                                   |
| Oct-88 | 596  | 596   | 238                | 0        | 280                                 | 172                                       | 65                                   |
| Nov-88 | 875  | 875   | 350                | 0        | 292                                 | 179                                       | 67                                   |
| Dec-88 | 694  | 694   | 278                | 0        | 328                                 | 202                                       | 76                                   |
| Jan-89 | 759  | 759   | 303                | 0        | 328                                 | 202                                       | 76                                   |
| Feb-89 | 1131   | 1131  | 452                | 0        | 328                                 | 202                                       | 76                                   |
| Mar-89 | 897  | 897   | 359                | 0        | 304                                 | 187                                       | 70                                   |
| Apr-89 | 807  | 807   | 323                | 0        | 292                                 | 180                                       | 67                                   |
| May-89 | 697  | 697   | 279                | 0        | 316                                 | 194                                       | 73                                   |
| Jun-89 | 589  | 589   | 236                | 0        | 316                                 | 194                                       | 73                                   |
| Jul-89 | 506  | 506   | 202                | 0        | 304                                 | 187                                       | 70                                   |
| Aug-89 | 557  | 557   | 223                | 0        | 280                                 | 172                                       | 65                                   |
| Sep-89 | 448  | 448   | 179                | 0        | 279                                 | 172                                       | 64                                   |
| Oct-89 | 596  | 596   | 238                | 0        | 280                                 | 172                                       | 65                                   |
| Nov-89 | 875  | 875   | 350                | 0        | 292                                 | 179                                       | 67                                   |
| Dec-89 | 694  | 694   | 278                | 0        | 328                                 | 202                                       | 76                                   |

| Month  | Hoboken<br>Total Nitrogen Load (lb/d) |   |                    |          |                                    |                                       |                                    |
|--------|---------------------------------------|---|--------------------|----------|------------------------------------|---------------------------------------|------------------------------------|
|        | Baseline                              | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = 26.0 (mg/L) | Medium TN Removal<br>TN = 11.0 (mg/L) | High TN Removal<br>TN = 4.0 (mg/L) |
| Jan-88 | 1100                                  | 1100  | 440                | 0        | 2579                               | 1091                                  | 397                                |
| Feb-88 | 1274                                  | 1274  | 509                | 0        | 2409                               | 1019                                  | 371                                |
| Mar-88 | 534                                   | 534   | 213                | 0        | 2279                               | 964                                   | 351                                |
| Apr-88 | 1118                                  | 1118  | 447                | 0        | 2257                               | 955                                   | 347                                |
| May-88 | 1621                                  | 1621  | 650                | 0        | 2344                               | 992                                   | 361                                |
| Jun-88 | 3049                                  | 3049  | 1219               | 0        | 2344                               | 992                                   | 361                                |
| Jul-88 | 2102                                  | 2102  | 842                | 0        | 2474                               | 1047                                  | 381                                |
| Aug-88 | 2755                                  | 2755  | 1103               | 0        | 2149                               | 909                                   | 331                                |
| Sep-88 | 2244                                  | 2244  | 899                | 0        | 2127                               | 900                                   | 327                                |
| Oct-88 | 3056                                  | 3056  | 1221               | 0        | 2366                               | 1001                                  | 364                                |
| Nov-88 | 1975                                  | 1975  | 790                | 0        | 2344                               | 992                                   | 361                                |
| Dec-88 | 1415                                  | 1415  | 568                | 0        | 2474                               | 1047                                  | 381                                |
| Jan-89 | 1102                                  | 1102  | 441                | 0        | 2583                               | 1093                                  | 397                                |
| Feb-89 | 1274                                  | 1274  | 509                | 0        | 2409                               | 1019                                  | 371                                |
| Mar-89 | 534                                   | 534   | 213                | 0        | 2279                               | 964                                   | 351                                |
| Apr-89 | 1118                                  | 1118  | 447                | 0        | 2257                               | 955                                   | 347                                |
| May-89 | 1621                                  | 1621  | 650                | 0        | 2344                               | 992                                   | 361                                |
| Jun-89 | 3049                                  | 3049  | 1219               | 0        | 2344                               | 992                                   | 361                                |
| Jul-89 | 2102                                  | 2102  | 842                | 0        | 2474                               | 1047                                  | 381                                |
| Aug-89 | 2755                                  | 2755  | 1103               | 0        | 2149                               | 909                                   | 331                                |
| Sep-89 | 2244                                  | 2244  | 899                | 0        | 2127                               | 900                                   | 327                                |
| Oct-89 | 3056                                  | 3056  | 1221               | 0        | 2366                               | 1001                                  | 364                                |
| Nov-89 | 1975                                  | 1975  | 790                | 0        | 2344                               | 992                                   | 361                                |
| Dec-89 | 1415                                  | 1415  | 568                | 0        | 2474                               | 1047                                  | 381                                |

| Month  | Hoboken<br>Total Organic Carbon Load (lb/d) |   |                    |          |                                    |   |                                      |
|--------|---|---|--------------------|----------|------------------------------------|---|--------------------------------------|
|        | Baseline                                    | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = 16 (mg/L) | Medium BOD<br>Removal<br>BOD = 4.0 (mg/L) | High BOD Removal<br>BOD = 1.5 (mg/L) |
| Jan-88 | 1887  | 1887  | 755                | 0        | 3139                               | 785                                       | 294                                  |
| Feb-88 | 1924  | 1924  | 769                | 0        | 2929                               | 732                                       | 275                                  |
| Mar-88 | 1039  | 1039  | 416                | 0        | 2774                               | 693                                       | 260                                  |
| Apr-88 | 1305  | 1305  | 522                | 0        | 2751                               | 688                                       | 258                                  |
| May-88 | 1868  | 1868  | 747                | 0        | 2855                               | 714                                       | 268                                  |
| Jun-88 | 2138  | 2138  | 855                | 0        | 2851                               | 713                                       | 267                                  |
| Jul-88 | 1691  | 1691  | 676                | 0        | 3012                               | 753                                       | 282                                  |
| Aug-88 | 1467  | 1467  | 587                | 0        | 2617                               | 654                                       | 245                                  |
| Sep-88 | 1815  | 1815  | 726                | 0        | 2589                               | 647                                       | 243                                  |
| Oct-88 | 1614  | 1614  | 646                | 0        | 2879                               | 720                                       | 270                                  |
| Nov-88 | 1430  | 1430  | 572                | 0        | 2856                               | 714                                       | 268                                  |
| Dec-88 | 1989  | 1989  | 796                | 0        | 3011                               | 753                                       | 282                                  |
| Jan-89 | 1890  | 1890  | 756                | 0        | 3143                               | 786                                       | 295                                  |
| Feb-89 | 1924  | 1924  | 769                | 0        | 2929                               | 732                                       | 275                                  |
| Mar-89 | 1039  | 1039  | 416                | 0        | 2774                               | 693                                       | 260                                  |
| Apr-89 | 1305  | 1305  | 522                | 0        | 2751                               | 688                                       | 258                                  |
| May-89 | 1868  | 1868  | 747                | 0        | 2855                               | 714                                       | 268                                  |
| Jun-89 | 2138  | 2138  | 855                | 0        | 2851                               | 713                                       | 267                                  |
| Jul-89 | 1691  | 1691  | 676                | 0        | 3012                               | 753                                       | 282                                  |
| Aug-89 | 1467  | 1467  | 587                | 0        | 2617                               | 654                                       | 245                                  |
| Sep-89 | 1815  | 1815  | 726                | 0        | 2589                               | 647                                       | 243                                  |
| Oct-89 | 1614  | 1614  | 646                | 0        | 2879                               | 720                                       | 270                                  |
| Nov-89 | 1430  | 1430  | 572                | 0        | 2856                               | 714                                       | 268                                  |
| Dec-89 | 1989  | 1989  | 796                | 0        | 3011                               | 753                                       | 282                                  |

| Month  | West New York<br>Total Nitrogen Load (lb/d) |   |                    |          |                                    |                                       |                                    |
|--------|---|---|--------------------|----------|------------------------------------|---------------------------------------|------------------------------------|
|        | Baseline                                    | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = 24.5 (mg/L) | Medium TN Removal<br>TN = 11.0 (mg/L) | High TN Removal<br>TN = 4.0 (mg/L) |
| Jan-88 | 1080  | 1080  | 432                | 0        | 2124                               | 954                                   | 347                                |
| Feb-88 | 1043  | 1043  | 417                | 0        | 2106                               | 946                                   | 344                                |
| Mar-88 | 937   | 937   | 375                | 0        | 1922                               | 863                                   | 314                                |
| Apr-88 | 938   | 938   | 375                | 0        | 1861                               | 836                                   | 304                                |
| May-88 | 956   | 956   | 383                | 0        | 1841                               | 826                                   | 300                                |
| Jun-88 | 1165  | 1165  | 466                | 0        | 1820                               | 817                                   | 297                                |
| Jul-88 | 1317  | 1317  | 527                | 0        | 1697                               | 762                                   | 277                                |
| Aug-88 | 898   | 898   | 359                | 0        | 1391                               | 624                                   | 227                                |
| Sep-88 | 700   | 700   | 280                | 0        | 1350                               | 606                                   | 220                                |
| Oct-88 | 1140  | 1140  | 456                | 0        | 1902                               | 854                                   | 311                                |
| Nov-88 | 1199  | 1199  | 480                | 0        | 1984                               | 891                                   | 324                                |
| Dec-88 | 1241  | 1241  | 496                | 0        | 2066                               | 927                                   | 337                                |
| Jan-89 | 1081  | 1081  | 433                | 0        | 2127                               | 955                                   | 347                                |
| Feb-89 | 1043  | 1043  | 417                | 0        | 2106                               | 946                                   | 344                                |
| Mar-89 | 937   | 937   | 375                | 0        | 1922                               | 863                                   | 314                                |
| Apr-89 | 938   | 938   | 375                | 0        | 1861                               | 836                                   | 304                                |
| May-89 | 956   | 956   | 383                | 0        | 1841                               | 826                                   | 300                                |
| Jun-89 | 1165  | 1165  | 466                | 0        | 1820                               | 817                                   | 297                                |
| Jul-89 | 1317  | 1317  | 527                | 0        | 1697                               | 762                                   | 277                                |
| Aug-89 | 898   | 898   | 359                | 0        | 1391                               | 624                                   | 227                                |
| Sep-89 | 700   | 700   | 280                | 0        | 1350                               | 606                                   | 220                                |
| Oct-89 | 1140  | 1140  | 456                | 0        | 1902                               | 854                                   | 311                                |
| Nov-89 | 1199  | 1199  | 480                | 0        | 1984                               | 891                                   | 324                                |
| Dec-89 | 1241  | 1241  | 496                | 0        | 2066                               | 927                                   | 337                                |

| Month  | West New York<br>Total Organic Carbon Load (lb/d) |   |                    |          |                                     |   |                                      |
|--------|---|---|--------------------|----------|-------------------------------------|---|--------------------------------------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = 6.5 (mg/L) | Medium BOD<br>Removal<br>BOD = 4.0 (mg/L) | High BOD Removal<br>BOD = 1.5 (mg/L) |
| Jan-88 | 2374  | 2374  | 949                | 0        | 1245                                | 766                                       | 287                                  |
| Feb-88 | 3038  | 3038  | 1215               | 0        | 1235                                | 760                                       | 285                                  |
| Mar-88 | 2604  | 2604  | 1041               | 0        | 1127                                | 694                                       | 260                                  |
| Apr-88 | 4334  | 4334  | 1735               | 0        | 1092                                | 672                                       | 252                                  |
| May-88 | 2582  | 2582  | 1032               | 0        | 1081                                | 665                                       | 249                                  |
| Jun-88 | 2158  | 2158  | 863                | 0        | 1068                                | 657                                       | 246                                  |
| Jul-88 | 2453  | 2453  | 981                | 0        | 995                                 | 612                                       | 230                                  |
| Aug-88 | 1379  | 1379  | 552                | 0        | 816                                 | 502                                       | 188                                  |
| Sep-88 | 1355  | 1355  | 542                | 0        | 792                                 | 487                                       | 183                                  |
| Oct-88 | 3099  | 3099  | 1240               | 0        | 1116                                | 687                                       | 257                                  |
| Nov-88 | 2726  | 2726  | 1091               | 0        | 1164                                | 716                                       | 269                                  |
| Dec-88 | 2130  | 2130  | 851                | 0        | 1212                                | 746                                       | 280                                  |
| Jan-89 | 2377  | 2377  | 951                | 0        | 1247                                | 767                                       | 288                                  |
| Feb-89 | 3038  | 3038  | 1215               | 0        | 1235                                | 760                                       | 285                                  |
| Mar-89 | 2604  | 2604  | 1041               | 0        | 1127                                | 694                                       | 260                                  |
| Apr-89 | 4334  | 4334  | 1735               | 0        | 1092                                | 672                                       | 252                                  |
| May-89 | 2582  | 2582  | 1032               | 0        | 1081                                | 665                                       | 249                                  |
| Jun-89 | 2158  | 2158  | 863                | 0        | 1068                                | 657                                       | 246                                  |
| Jul-89 | 2453  | 2453  | 981                | 0        | 995                                 | 612                                       | 230                                  |
| Aug-89 | 1379  | 1379  | 552                | 0        | 816                                 | 502                                       | 188                                  |
| Sep-89 | 1355  | 1355  | 542                | 0        | 792                                 | 487                                       | 183                                  |
| Oct-89 | 3099  | 3099  | 1240               | 0        | 1116                                | 687                                       | 257                                  |
| Nov-89 | 2726  | 2726  | 1091               | 0        | 1164                                | 716                                       | 269                                  |
| Dec-89 | 2130  | 2130  | 851                | 0        | 1212                                | 746                                       | 280                                  |

| Month  | Passaic Valley<br>Total Nitrogen Load (lb/d) |   |                    |          |                                    |                                       |                                    |
|--------|--|---|--------------------|----------|------------------------------------|---------------------------------------|------------------------------------|
|        | Baseline                                     | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = 20.0 (mg/L) | Medium TN Removal<br>TN = 11.0 (mg/L) | High TN Removal<br>TN = 4.0 (mg/L) |
| Jan-88 | 59057  | 59057   | 23641              | 0        | 46181                              | 25400                                 | 9236                               |
| Feb-88 | 78886  | 78886   | 31575              | 0        | 44908                              | 24699                                 | 8982                               |
| Mar-88 | 78820  | 78820   | 31531              | 0        | 45242                              | 24883                                 | 9048                               |
| Apr-88 | 63295  | 63295   | 25318              | 0        | 41235                              | 22679                                 | 8247                               |
| May-88 | 65160  | 65160   | 26064              | 0        | 43739                              | 24057                                 | 8748                               |
| Jun-88 | 53013  | 53013   | 21209              | 0        | 43239                              | 23781                                 | 8648                               |
| Jul-88 | 54146  | 54146   | 21658              | 0        | 44741                              | 24608                                 | 8948                               |
| Aug-88 | 65491  | 65491   | 26193              | 0        | 42905                              | 23598                                 | 8581                               |
| Sep-88 | 57257  | 57257   | 22901              | 0        | 40901                              | 22496                                 | 8180                               |
| Oct-88 | 70341  | 70341   | 28135              | 0        | 41736                              | 22955                                 | 8347                               |
| Nov-88 | 64640  | 64640   | 25851              | 0        | 43072                              | 23689                                 | 8614                               |
| Dec-88 | 58952  | 58952   | 23589              | 0        | 45242                              | 24883                                 | 9048                               |
| Jan-89 | 59137  | 59137   | 23673              | 0        | 46244                              | 25434                                 | 9249                               |
| Feb-89 | 78886  | 78886   | 31575              | 0        | 44908                              | 24699                                 | 8982                               |
| Mar-89 | 78820  | 78820   | 31531              | 0        | 45242                              | 24883                                 | 9048                               |
| Apr-89 | 63295  | 63295   | 25318              | 0        | 41235                              | 22679                                 | 8247                               |
| May-89 | 65160  | 65160   | 26064              | 0        | 43739                              | 24057                                 | 8748                               |
| Jun-89 | 53013  | 53013   | 21209              | 0        | 43239                              | 23781                                 | 8648                               |
| Jul-89 | 54146  | 54146   | 21658              | 0        | 44741                              | 24608                                 | 8948                               |
| Aug-89 | 65491  | 65491   | 26193              | 0        | 42905                              | 23598                                 | 8581                               |
| Sep-89 | 57257  | 57257   | 22901              | 0        | 40901                              | 22496                                 | 8180                               |
| Oct-89 | 70341  | 70341   | 28135              | 0        | 41736                              | 22955                                 | 8347                               |
| Nov-89 | 64640  | 64640   | 25851              | 0        | 43072                              | 23689                                 | 8614                               |
| Dec-89 | 58952  | 58952   | 23589              | 0        | 45242                              | 24883                                 | 9048                               |



| Month  | Passaic Valley<br>Total Organic Carbon Load (lb/d) |   |                    |          |                                     |   |                                      |
|--------|--|---|--------------------|----------|-------------------------------------|---|--------------------------------------|
|        | Baseline   | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = 6.5 (mg/L) | Medium BOD<br>Removal<br>BOD = 4.0 (mg/L) | High BOD Removal<br>BOD = 1.5 (mg/L) |
| Jan-88 | 94671  | 94671   | 37833              | 0        | 28175                               | 17338                                     | 6502                                 |
| Feb-88 | 96386  | 96386   | 38581              | 0        | 27390                               | 16855                                     | 6321                                 |
| Mar-88 | 106042   | 106042  | 42435              | 0        | 27605                               | 16988                                     | 6370                                 |
| Apr-88 | 116713   | 116713  | 46703              | 0        | 25164                               | 15486                                     | 5807                                 |
| May-88 | 93961  | 93961   | 37584              | 0        | 26691                               | 16425                                     | 6159                                 |
| Jun-88 | 84393  | 84393   | 33748              | 0        | 26376                               | 16231                                     | 6087                                 |
| Jul-88 | 78617  | 78617   | 31429              | 0        | 27294                               | 16797                                     | 6299                                 |
| Aug-88 | 92153  | 92153   | 36870              | 0        | 26171                               | 16105                                     | 6039                                 |
| Sep-88 | 71871  | 71871   | 28722              | 0        | 24961                               | 15361                                     | 5760                                 |
| Oct-88 | 77426  | 77426   | 30953              | 0        | 25473                               | 15675                                     | 5878                                 |
| Nov-88 | 88273  | 88273   | 35353              | 0        | 26282                               | 16173                                     | 6065                                 |
| Dec-88 | 88317  | 88317   | 35353              | 0        | 27596                               | 16982                                     | 6368                                 |
| Jan-89 | 94799  | 94799   | 37884              | 0        | 28213                               | 17362                                     | 6511                                 |
| Feb-89 | 96386  | 96386   | 38581              | 0        | 27390                               | 16855                                     | 6321                                 |
| Mar-89 | 106042   | 106042  | 42435              | 0        | 27605                               | 16988                                     | 6370                                 |
| Apr-89 | 116713   | 116713  | 46703              | 0        | 25164                               | 15486                                     | 5807                                 |
| May-89 | 93961  | 93961   | 37584              | 0        | 26691                               | 16425                                     | 6159                                 |
| Jun-89 | 84393  | 84393   | 33748              | 0        | 26376                               | 16231                                     | 6087                                 |
| Jul-89 | 78617  | 78617   | 31429              | 0        | 27294                               | 16797                                     | 6299                                 |
| Aug-89 | 92153  | 92153   | 36870              | 0        | 26171                               | 16105                                     | 6039                                 |
| Sep-89 | 71871  | 71871   | 28722              | 0        | 24961                               | 15361                                     | 5760                                 |
| Oct-89 | 77426  | 77426   | 30953              | 0        | 25473                               | 15675                                     | 5878                                 |
| Nov-89 | 88273  | 88273   | 35353              | 0        | 26282                               | 16173                                     | 6065                                 |
| Dec-89 | 88317  | 88317   | 35353              | 0        | 27596                               | 16982                                     | 6368                                 |

| Month  | Edgewater<br>Total Nitrogen Load (lb/d) |   |                    |          |                                    |                                       |                                    |
|--------|---|---|--------------------|----------|------------------------------------|---------------------------------------|------------------------------------|
|        | Baseline                                | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low TN Removal<br>TN = 20.0 (mg/L) | Medium TN Removal<br>TN = 11.0 (mg/L) | High TN Removal<br>TN = 4.0 (mg/L) |
| Jan-88 | 592                                     | 592   | 237                | 0        | 634                                | 348                                   | 127                                |
| Feb-88 | 472                                     | 472   | 189                | 0        | 534                                | 294                                   | 107                                |
| Mar-88 | 385                                     | 385   | 154                | 0        | 501                                | 275                                   | 100                                |
| Apr-88 | 412                                     | 412   | 165                | 0        | 451                                | 248                                   | 90                                 |
| May-88 | 364                                     | 364   | 146                | 0        | 451                                | 248                                   | 90                                 |
| Jun-88 | 339                                     | 339   | 136                | 0        | 434                                | 239                                   | 87                                 |
| Jul-88 | 335                                     | 335   | 134                | 0        | 434                                | 239                                   | 87                                 |
| Aug-88 | 266                                     | 266   | 107                | 0        | 401                                | 220                                   | 80                                 |
| Sep-88 | 282                                     | 282   | 113                | 0        | 434                                | 239                                   | 87                                 |
| Oct-88 | 520                                     | 520   | 208                | 0        | 484                                | 266                                   | 97                                 |
| Nov-88 | 289                                     | 289   | 116                | 0        | 568                                | 312                                   | 114                                |
| Dec-88 | 411                                     | 411   | 165                | 0        | 601                                | 331                                   | 120                                |
| Jan-89 | 593                                     | 593   | 237                | 0        | 634                                | 349                                   | 127                                |
| Feb-89 | 472                                     | 472   | 189                | 0        | 534                                | 294                                   | 107                                |
| Mar-89 | 385                                     | 385   | 154                | 0        | 501                                | 275                                   | 100                                |
| Apr-89 | 412                                     | 412   | 165                | 0        | 451                                | 248                                   | 90                                 |
| May-89 | 364                                     | 364   | 146                | 0        | 451                                | 248                                   | 90                                 |
| Jun-89 | 339                                     | 339   | 136                | 0        | 434                                | 239                                   | 87                                 |
| Jul-89 | 335                                     | 335   | 134                | 0        | 434                                | 239                                   | 87                                 |
| Aug-89 | 266                                     | 266   | 107                | 0        | 401                                | 220                                   | 80                                 |
| Sep-89 | 282                                     | 282   | 113                | 0        | 434                                | 239                                   | 87                                 |
| Oct-89 | 520                                     | 520   | 208                | 0        | 484                                | 266                                   | 97                                 |
| Nov-89 | 289                                     | 289   | 116                | 0        | 568                                | 312                                   | 114                                |
| Dec-89 | 411                                     | 411   | 165                | 0        | 601                                | 331                                   | 120                                |

| Month  | Edgewater<br>Total Organic Carbon Load (lb/d) |   |                    |          |                                     |   |                                      |
|--------|---|---|--------------------|----------|-------------------------------------|---|--------------------------------------|
|        | Baseline                                      | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral | Low BOD Removal<br>BOD = 6.5 (mg/L) | Medium BOD<br>Removal<br>BOD = 4.0 (mg/L) | High BOD Removal<br>BOD = 1.5 (mg/L) |
|        | Jan-88  | 694   | 694                | 278      | 0                                   | 459                                       | 282                                  |
| Feb-88 | 581   | 581   | 232                | 0        | 387                                 | 238                                       | 89                                   |
| Mar-88 | 625   | 625   | 250                | 0        | 363                                 | 223                                       | 84                                   |
| Apr-88 | 567   | 567   | 227                | 0        | 327                                 | 201                                       | 75                                   |
| May-88 | 586   | 586   | 235                | 0        | 326                                 | 201                                       | 75                                   |
| Jun-88 | 413   | 413   | 165                | 0        | 314                                 | 193                                       | 73                                   |
| Jul-88 | 459   | 459   | 184                | 0        | 314                                 | 193                                       | 73                                   |
| Aug-88 | 463   | 463   | 185                | 0        | 290                                 | 179                                       | 67                                   |
| Sep-88 | 484   | 484   | 194                | 0        | 314                                 | 193                                       | 73                                   |
| Oct-88 | 466   | 466   | 187                | 0        | 351                                 | 216                                       | 81                                   |
| Nov-88 | 668   | 668   | 267                | 0        | 411                                 | 253                                       | 95                                   |
| Dec-88 | 786   | 786   | 315                | 0        | 435                                 | 268                                       | 100                                  |
| Jan-89 | 694   | 694   | 278                | 0        | 460                                 | 283                                       | 106                                  |
| Feb-89 | 581   | 581   | 232                | 0        | 387                                 | 238                                       | 89                                   |
| Mar-89 | 625   | 625   | 250                | 0        | 363                                 | 223                                       | 84                                   |
| Apr-89 | 567   | 567   | 227                | 0        | 327                                 | 201                                       | 75                                   |
| May-89 | 586   | 586   | 235                | 0        | 326                                 | 201                                       | 75                                   |
| Jun-89 | 413   | 413   | 165                | 0        | 314                                 | 193                                       | 73                                   |
| Jul-89 | 459   | 459   | 184                | 0        | 314                                 | 193                                       | 73                                   |
| Aug-89 | 463   | 463   | 185                | 0        | 290                                 | 179                                       | 67                                   |
| Sep-89 | 484   | 484   | 194                | 0        | 314                                 | 193                                       | 73                                   |
| Oct-89 | 466   | 466   | 187                | 0        | 351                                 | 216                                       | 81                                   |
| Nov-89 | 668   | 668   | 267                | 0        | 411                                 | 253                                       | 95                                   |
| Dec-89 | 786   | 786   | 315                | 0        | 435                                 | 268                                       | 100                                  |

| Month  | Atmospheric Load<br>Total Nitrogen Deposition Rate (lb/mi2-d) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
| Jan-88 | 11.02   | 8.23  | 8.23               | 0.84     |
| Feb-88 | 14.70   | 10.98   | 10.98              | 1.12     |
| Mar-88 | 18.17   | 13.57   | 13.57              | 1.38     |
| Apr-88 | 17.67   | 13.19   | 13.19              | 1.35     |
| May-88 | 34.06   | 25.43   | 25.43              | 2.59     |
| Jun-88 | 25.80   | 19.26   | 19.26              | 1.96     |
| Jul-88 | 19.75   | 14.75   | 14.75              | 1.50     |
| Aug-88 | 28.99   | 21.65   | 21.65              | 2.21     |
| Sep-88 | 19.27   | 14.39   | 14.39              | 1.47     |
| Oct-88 | 15.14   | 11.30   | 11.30              | 1.15     |
| Nov-88 | 32.32   | 24.13   | 24.13              | 2.46     |
| Dec-88 | 9.50  | 7.10  | 7.10               | 0.72     |
| Jan-89 | 11.02   | 8.23  | 8.23               | 0.84     |
| Feb-89 | 14.70   | 10.98   | 10.98              | 1.12     |
| Mar-89 | 18.17   | 13.57   | 13.57              | 1.38     |
| Apr-89 | 17.67   | 13.19   | 13.19              | 1.35     |
| May-89 | 34.06   | 25.43   | 25.43              | 2.59     |
| Jun-89 | 25.80   | 19.26   | 19.26              | 1.96     |
| Jul-89 | 19.75   | 14.75   | 14.75              | 1.50     |
| Aug-89 | 28.99   | 21.65   | 21.65              | 2.21     |
| Sep-89 | 19.27   | 14.39   | 14.39              | 1.47     |
| Oct-89 | 15.14   | 11.30   | 11.30              | 1.15     |
| Nov-89 | 32.32   | 24.13   | 24.13              | 2.46     |
| Dec-89 | 9.50  | 7.10  | 7.10               | 0.72     |

| Month  | Atmospheric Load<br>Total Organic Carbon Deposition Rate (lb/mi2-d) |   |                    |          |
|--------|---|---|--------------------|----------|
|        | Baseline  | Baseline<br>+ CAIR<br>+ LISS TMDL<br>+ JB Consent Order | HydroQual Scenario | Pastoral |
|        |   |   |                    |          |
| Jan-88 | 12.51   | 12.50   | 12.50              | 0.95     |
| Feb-88 | 19.44   | 19.44   | 19.44              | 1.48     |
| Mar-88 | 25.96   | 25.96   | 25.96              | 1.98     |
| Apr-88 | 25.02   | 25.02   | 25.02              | 1.91     |
| May-88 | 55.90   | 55.90   | 55.90              | 4.26     |
| Jun-88 | 40.34   | 40.34   | 40.34              | 3.07     |
| Jul-88 | 28.94   | 28.95   | 28.95              | 2.20     |
| Aug-88 | 46.36   | 46.36   | 46.36              | 3.53     |
| Sep-88 | 28.04   | 28.05   | 28.05              | 2.14     |
| Oct-88 | 20.26   | 20.26   | 20.26              | 1.54     |
| Nov-88 | 52.63   | 52.62   | 52.62              | 4.01     |
| Dec-88 | 9.64  | 9.64  | 9.64               | 0.73     |
| Jan-89 | 12.51   | 12.50   | 12.50              | 0.95     |
| Feb-89 | 19.44   | 19.44   | 19.44              | 1.48     |
| Mar-89 | 25.96   | 25.96   | 25.96              | 1.98     |
| Apr-89 | 25.02   | 25.02   | 25.02              | 1.91     |
| May-89 | 55.90   | 55.90   | 55.90              | 4.26     |
| Jun-89 | 40.34   | 40.34   | 40.34              | 3.07     |
| Jul-89 | 28.94   | 28.95   | 28.95              | 2.20     |
| Aug-89 | 46.36   | 46.36   | 46.36              | 3.53     |
| Sep-89 | 28.04   | 28.05   | 28.05              | 2.14     |
| Oct-89 | 20.26   | 20.26   | 20.26              | 1.54     |
| Nov-89 | 52.63   | 52.62   | 52.62              | 4.01     |
| Dec-89 | 9.64  | 9.64  | 9.64               | 0.73     |