

FIELD DATA - Measurements taken on site, 2012

PLC001 - Primary Lower Cottonwood River near New Ulm - Non-impacted stream/Western Corn Belt Plains

STORET CODE - S001-918 **2012 Wateryear (Oct 1, 2011 to Sept. 30, 2012)**

| Flow Type | Date | FLOW | Time | Temp © | DO | pH | TT 1 | Conductivity |
|-------------|------------|------|-------|--------|-------|------|------|--------------|
| Base | 10/27/2011 | | 13:40 | 9.1 | 12.23 | 8.48 | | |
| Base | 11/28/2011 | | 14:10 | 2.2 | 14.05 | 8.59 | 60+ | |
| Base | 12/28/2011 | | 13:45 | 0.4 | 13.95 | 8.48 | 60+ | |
| Base | 1/26/2012 | | 13:10 | 1.3 | 9.86 | 8.21 | | 598 |
| Base | 2/27/2012 | | 11:00 | 0.7 | 13.01 | 8.45 | N/A | 543 |
| Snow Melt | 3/16/2012 | | 13:05 | 8.8 | 11.27 | 8.31 | N/A | 1498 |
| Base | 4/11/2012 | | 15:20 | 14.1 | 11.46 | 8.39 | 34 | 753 |
| Base | 4/24/2012 | | 14:50 | 19.0 | 12.07 | 8.42 | 32 | 916 |
| Storm Event | 5/2/2012 | | 15:30 | 21.6 | 7.52 | 7.87 | 4 | 754 |
| Storm Event | 5/3/2012 | | 15:30 | 22.1 | 8.05 | 8.04 | 4 | 615 |
| Storm Event | 5/7/2012 | | 15:00 | 17.4 | 8.25 | 7.96 | 3 | 480 |
| Storm Event | 5/8/2012 | | 14:10 | 15.3 | 9.15 | 8.15 | 3 | 565 |
| Storm Event | 5/11/2012 | | 13:55 | 17.7 | 9.17 | 8.14 | 7 | 832 |
| Storm Event | 5/29/2012 | | 14:40 | 18.2 | 8.59 | 8.06 | 4 | 662 |
| Storm Event | 6/8/2012 | | 12:05 | 21.9 | 8.67 | 8.28 | 9 | 1061 |
| Base | 6/13/2012 | | 14:55 | 19.7 | 9.50 | 8.41 | 16 | 1051 |
| Base | 6/27/2012 | | 15:40 | 28.5 | 13.11 | 8.47 | 17 | 915 |
| Base | 7/12/2012 | | 15:40 | 26.3 | 9.99 | 8.49 | 18 | 807 |
| Base | 7/31/2012 | | 15:00 | 30.6 | 9.58 | 8.43 | 24 | 735 |
| Base | 8/21/2012 | | 14:50 | 24.8 | 10.87 | 8.41 | 35 | 752 |
| Base | 8/29/2012 | | 15:15 | 28.7 | 10.66 | 8.43 | 40 | 726 |
| Base | 9/13/2012 | | 14:35 | 20.8 | 11.39 | 8.32 | 56 | 752 |
| Base | 9/20/2012 | | 15:00 | 17.9 | 11.59 | 8.37 | 72 | 743 |
| Base | 10/23/2012 | | 13:25 | 14.0 | 10.39 | 8.47 | 100+ | 781 |
| Base | 11/15/2012 | | 12:05 | 4.5 | 12.78 | 8.36 | 100+ | 827 |
| Base | 12/27/2012 | | 13:35 | 0.2 | 13.49 | 8.23 | 100+ | 1195 |

FIELD DATA - Measurements taken on site, 2012

PLS005 - Primary Lower Sleepy Eye Creek near Cobden - Non-impacted stream/Western Corn Belt Plains

STORET CODE - S001-919 **2012 Wateryear (Oct 1, 2011 to Sept. 30, 2012)**

| Flow Type | Date | FLOW | Time | Temp © | DO | pH | TT 1 | Conductivity |
|-------------|-----------|------|-------|--------|-------|------|------|--------------|
| Base | 4/11/2012 | | 14:35 | 11.1 | 14.69 | 8.54 | 50 | 653 |
| Base | 4/24/2012 | | 13:45 | 16.7 | 14.68 | 8.52 | 61 | 814 |
| Storm Event | 5/2/2012 | | 14:45 | 19.2 | 7.53 | 7.85 | 4 | 422 |
| Storm Event | 5/3/2012 | | 14:45 | 21.1 | 7.82 | 7.92 | 10 | 671 |
| Storm Event | 5/7/2012 | | 14:05 | 15.6 | 7.92 | 7.90 | 3 | 467 |
| Storm Event | 5/8/2012 | | 13:30 | 13.9 | 9.11 | 8.06 | 7 | 696 |
| Storm Event | 5/29/2012 | | 13:45 | 16.6 | 8.21 | 7.94 | 7 | 707 |
| Base | 6/13/2012 | | 14:05 | 18.2 | 9.64 | 8.38 | 42 | 982 |
| Base | 6/27/2012 | | 13:50 | 26.0 | 9.63 | 8.43 | 35 | 974 |
| Base | 7/12/2012 | | 14:25 | 24.8 | 9.50 | 8.40 | 35 | 843 |
| Base | 7/31/2012 | | 13:55 | 27.8 | 10.21 | 8.42 | 25 | 829 |
| Base | 8/21/2012 | | 13:50 | 22.3 | 9.61 | 8.38 | | 828 |
| Base | 8/29/2012 | | 14:10 | 26.1 | 8.45 | 8.33 | 44 | 786 |
| Base | 9/13/2012 | | 13:50 | 20.0 | 7.83 | 8.20 | 51 | 837 |
| Base | 9/20/2012 | | 13:50 | 15.1 | 8.89 | 8.39 | 52 | 818 |

FIELD DATA - Measurements taken on site, 2012

PLC010 - Primary Lower Cottonwood River near Leavenworth - Non-impacted stream/Western Corn Belt Plains

STORET CODE - S001-920 **2012 Wateryear (Oct 1, 2011 to Sept. 30, 2012)**

| Flow Type | Date | FLOW | Time | Temp © | DO | pH | TT 1 | Conductivity |
|-------------|-----------|------|-------|--------|-------|------|------|--------------|
| Base | 4/11/2012 | | 14:15 | 12.6 | 12.63 | 8.42 | 39 | 801 |
| Base | 4/24/2012 | | 13:30 | 17.0 | 12.36 | 8.42 | 47 | 1039 |
| Storm Event | 5/2/2012 | | 14:30 | 20.7 | 9.68 | 8.12 | 18 | 971 |
| Storm Event | 5/3/2012 | | 14:30 | 20.0 | 6.98 | 7.94 | 4 | 857 |
| Storm Event | 5/7/2012 | | 13:50 | 17.0 | 7.69 | 7.88 | 2 | 524 |
| Storm Event | 5/8/2012 | | 13:15 | 14.9 | 8.57 | 8.01 | 4 | 646 |
| Storm Event | 5/11/2012 | | 13:10 | 17.2 | 8.54 | 8.01 | 9 | 869 |
| Storm Event | 5/29/2012 | | 13:30 | 18.6 | 7.73 | 7.95 | 5 | 644 |
| Base | 6/13/2012 | | 13:50 | 19.2 | 9.13 | 8.32 | 16 | 1138 |
| Base | 6/27/2012 | | 13:35 | 26.0 | 12.95 | 8.46 | 20 | 1061 |
| Base | 7/12/2012 | | 14:10 | 24.9 | 10.63 | 8.39 | 18 | 967 |
| Base | 7/31/2012 | | 13:40 | 29.1 | 10.73 | 8.34 | 20 | 879 |
| Base | 8/21/2012 | | 13:30 | 24.4 | 11.19 | 8.34 | 27 | 855 |
| Base | 8/29/2012 | | 13:50 | 28.1 | 12.75 | 8.38 | 27 | 872 |
| Base | 9/13/2012 | | 13:30 | 20.8 | 10.89 | 8.13 | 34 | 883 |
| Base | 9/20/2012 | | 13:35 | 16.9 | 12.07 | 8.37 | 40 | 867 |

FIELD DATA - Measurements taken on site, 2012

PMC020 - Primary Middle Cottonwood River near Lamberton - Non-impacted stream/Western Corn Belt Plains

STORET CODE - S002-247 2012 Wateryear (Oct 1, 2011 to Sept. 30, 2012)

| Flow Type | Date | FLOW | Time | Temp © | DO | pH | TT 1 | Conductivity |
|-------------|-----------|------|-------|--------|-------|------|------|--------------|
| Base | 4/11/2012 | | 13:35 | 12.0 | 12.63 | 8.39 | 42 | 952 |
| Base | 4/24/2012 | | 12:50 | 16.0 | 11.77 | 8.31 | 32 | 1287 |
| Storm Event | 5/2/2012 | | 13:45 | 18.4 | 7.36 | 7.86 | 2 | 568 |
| Storm Event | 5/3/2012 | | 13:50 | 17.6 | 8.05 | 7.93 | 3 | 774 |
| Storm Event | 5/7/2012 | | 13:10 | 15.5 | 8.08 | 7.92 | 4 | 569 |
| Storm Event | 5/8/2012 | | 12:40 | 14.7 | 8.00 | 8.01 | 8 | 724 |
| Storm Event | 5/11/2012 | | 12:35 | 17.6 | 7.56 | 7.93 | 13 | 938 |
| Storm Event | 5/29/2012 | | 12:50 | 17.9 | 7.51 | 7.96 | 10 | 769 |
| Base | 6/13/2012 | | 13:10 | 18.6 | 9.12 | 8.28 | 15 | 1330 |
| Base | 6/27/2012 | | 12:55 | 25.6 | 10.38 | 8.36 | 27 | 1251 |
| Base | 7/12/2012 | | 13:30 | 25.1 | 8.52 | 8.23 | 16 | 1152 |
| Base | 7/31/2012 | | 12:55 | 26.7 | 8.13 | 8.17 | 16 | 1095 |
| Base | 8/21/2012 | | 12:50 | 22.1 | 9.69 | 8.20 | 29 | 1067 |
| Base | 8/29/2012 | | 13:10 | 25.5 | 8.20 | 8.16 | 39 | 1097 |
| Base | 9/13/2012 | | 12:40 | 19.2 | 7.64 | 7.99 | 42 | 1093 |
| Base | 9/20/2012 | | 12:45 | 15.5 | 8.78 | 8.26 | 50 | 1117 |

FIELD DATA - Measurements taken on site, 2012

TUP - Tertiary Plum Creek near Walnut Grove - Non-impacted stream/Western Corn Belt Plains

STORET CODE - S001-91. 2012 Wateryear (Oct 1, 2011 to Sept. 30, 2012)

| Flow Type | Date | FLOW | Time | Temp © | DO | pH | TT 1 | Conductivity | |
|-------------|-----------|------|-------|------------------------------|-------|------|------|--------------|--|
| Base | 4/11/2012 | | 13:00 | 9.1 | 12.48 | 8.31 | 100+ | 877 | |
| Base | 4/24/2012 | | 12:15 | 14.5 | 10.87 | 8.25 | 100+ | 1244 | |
| Storm event | 5/2/2012 | | 13:10 | 16.1 | 7.63 | 7.96 | 1 | 662 | |
| Storm event | 5/3/2012 | | 13:20 | 17.8 | 8.29 | 7.98 | 4 | 729 | |
| Storm event | 5/7/2012 | | 12:35 | 15.4 | 8.84 | 8.01 | 3 | 635 | |
| Storm event | 5/8/2012 | | 12:10 | 13.8 | 9.43 | 8.06 | 4 | 818 | |
| Storm event | 5/29/2012 | | 12:20 | 15.8 | 8.74 | 8.14 | 6 | 813 | |
| Base | 6/13/2012 | | 12:40 | 17.6 | 9.27 | 8.34 | 42 | 1179 | |
| Base | 6/27/2012 | | 12:25 | 24.7 | 9.51 | 8.34 | 77 | 1159 | |
| Base | 7/12/2012 | | 12:55 | 22.9 | 8.55 | 8.18 | 60 | 1146 | |
| Drought | 7/31/2012 | | 12:30 | No/low Flow, no sample taken | | | | | |
| Drought | 8/21/2012 | | 12:30 | No/low Flow, no sample taken | | | | | |
| Drought | 8/29/2012 | | 12:50 | No/low Flow, no sample taken | | | | | |
| Drought | 9/13/2012 | | 12:20 | No/low Flow, no sample taken | | | | | |
| Drought | 9/20/2012 | | 12:20 | No/low Flow, no sample taken | | | | | |