

Memo

Date: June 10, 2014
To: Kevin Stewart
From: Markus Ritsch
Subject: May 2014 ALERT Data Analysis

I. ALERT Data Source

Raw ALERT data records extracted from the Urban Drainage and Flood Control District's NovaStar 5 base station were analyzed for the period May 1 through May 31, 2014.

II. General System Analysis Summary

In 2014 data will be received at the District through both the legacy ALERT channel and through the ALERT2 (concentrator plus A2 self-reports) channel. The following (Table 1) quantifies the data reception through each telemetry source. The West Creek repeater in Douglas County processes both incoming data on A1 and A2 but passes on only A2 format messages to Diamond Hill. All other repeaters in the system send data on both legacy and A2 channels.

Table 1. Reception of A1/A2 Data at Diamond Hill

| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------|----------------|----------------|----------------|----------------|------------------|----------|----------|----------|----------|----------|----------|----------|
| Legacy | 320,303 | 214,698 | 279,782 | 293,137 | 351,946 | | | | | | | |
| Concentrator | 508,306 | 370,222 | 495,874 | 515,526 | 537,996 | | | | | | | |
| ALERT2 | 129,855 | 86,506 | 110,086 | 107,478 | 113,674 | | | | | | | |
| TOTAL | 958,464 | 671,426 | 885,742 | 916,141 | 1,003,616 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Conc+A2 | 638,161 | 456,728 | 605,960 | 623,004 | 651,670 | | | | | | | |
| Conc/Leg | 1.59 | 1.72 | 1.77 | 1.76 | 1.53 | | | | | | | |
| DataChron | 498,846 | 444,211 | 599,923 | 630,962 | 663,576 | | | | | | | |

The daily ratio of ALERT2 reports received versus legacy ALERT reports received is shown (Figure 1). The data show a general decreasing trend in the ratio for the month of May.

Beginning in June of 2014 the District will operate two redundant NovaStar5 base stations: primary base station (ns5a) at Diamond Hill and the redundant base (ns5b) at Greenhouse Data. Additional analyses will be conducted on the data received by these two base stations. The data received by both base stations for a short period in early June are shown below. The short comparison (Table 2) shows an interesting trend in that ns5b (Greenhouse Data) receives more ALERT2 reports than does ns5a.

Table 2. Comparison of Data Reception by ns5a and ns5b

| NS5-A | June 5 | June 6 | June 7 | June 8 | June 9 |
|--------------|--------|--------|--------|--------|--------|
| Legacy | 10,254 | 10,286 | 9,307 | 13,048 | 10,079 |
| Concentrator | 16,190 | 16,109 | 14,214 | 20,024 | 15,683 |
| ALERT2 | 3,482 | 3,681 | 3,634 | 4,154 | 3,697 |
| NS5-B | | | | | |
| Legacy | 10,254 | 10,285 | 9,308 | 13,050 | 10,078 |
| Concentrator | 16,217 | 16,126 | 14,247 | 20,155 | 15,732 |
| ALERT2 | 3,761 | 3,755 | 3,691 | 4,332 | 3,771 |

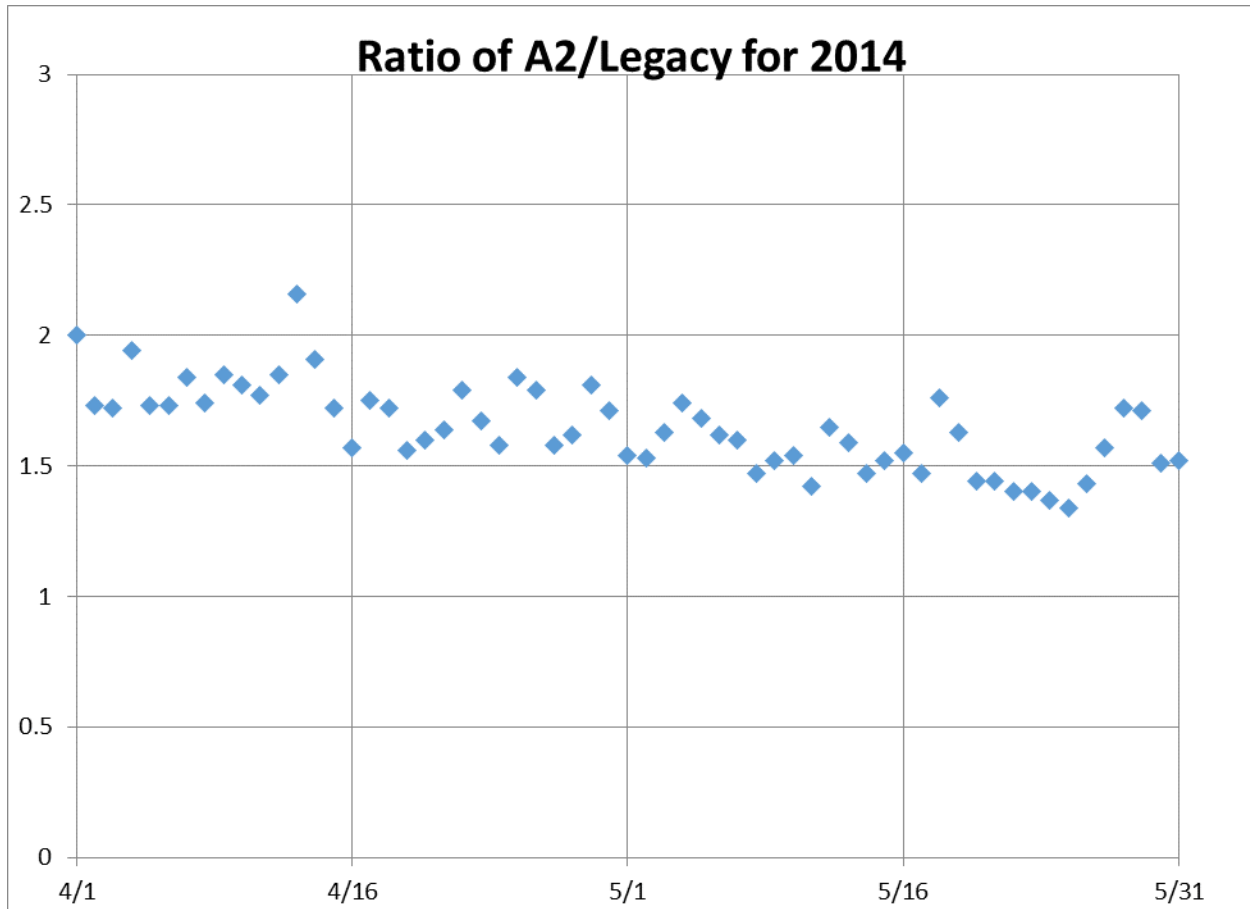


Figure 1. Daily Ratio of ALERT2/Legacy Reports

A. Continuous Operation of Base Receiver/Decoder

The NS5 base station was in continuous operation for the entire month.

B. Specific Issues Identified this Month

Performance of the following sensors (Table 3) was questionable this month.

Table 3. Sensors with Poor Performance Characteristics

| Sensor ID | Description | Timer | Event | Comments |
|--|---|-------|-------|---|
| 440 | Fire Station #7 | n/a | n/a | Removed from analyses this month |
| 100140 | A2-Upper Sellers Gulch | 16% | 75% | Started operation 5/22/2014 |
| 5940 | Log Jumper | 27% | 92% | Started operation 5/22/2014 |
| 1700 | Cherry Cr at Champa | 47% | 94% | Poor timer reporting |
| 2330 | Morrison | 56% | 69% | Poor timer and event reporting |
| 1710 | Shop Creek | 58% | 86% | Poor timer reporting |
| 4330 | Hansen Rain | 47% | 47% | Poor timer and event reporting |
| 4470 | Little Narrows | 82% | 64% | Poor reception of data on May 23, 700-730PM |
| 2980 | Dakan Road | 94% | 64% | WET to fix in June |
| 100150 | A2-Sellers Gulch at Haystack | 71% | 62% | Marginal radio path |
| 1021, 1022, 1024, 1026, 1027, 1028 | More than 20,000 reports from unknown IDs.....likely from Nolte Pond transmitter (1020) | | | |
| 1481, 1482, 1486, 1487 | More than 4,000 reports from unknown IDs.....likely from DIA at Third Creek (1480) | | | |
| 2841 | Reports from unknown ID.....likely from Sulphur Gulch (2840) | | | |

C. Performance of New A2 Sites

Currently there are only a handful of remote sites operating on the new A2 protocol. The “**event**” performance of these sites is tracked throughout the 2014 flood season below (Table 4).

Table 4. Event Performance of New A2 Sites (percent)

| Description | ID | Install Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug* | Sep* | Oct | Nov | Dec |
|--|--------|--------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| Heritage Regional Park | 3090 | 03/14/2013 | n/a | n/a | 100 | 100 | 100 | | | | | | | |
| ETG @ Hampden | 100110 | 05/01/2013 | n/a | n/a | 83 | 97 | 100 | | | | | | | |
| Blackstone | 100100 | 05/03/2013 | n/a | n/a | 100 | 100 | 100 | | | | | | | |
| Newlin Gulch | 3070 | 05/24/2013 | 100 | 83 | 100 | 100 | 100 | | | | | | | |
| Carr Street | 100 | 05/31/2013 | n/a | n/a | 100 | 100 | 100 | | | | | | | |
| Maple Grove | 1000 | 05/20/2013 | 100 | 90 | 97 | 100 | 100 | | | | | | | |
| Upper Sellers | 100140 | 05/22/2014 | n/a | n/a | n/a | n/a | 75 | | | | | | | |
| Haystack Road | 100150 | 02/26/2014 | n/a | n/a | 100 | 79 | 79 | | | | | | | |
| Sand Cr at Colfax | 100160 | 05/01/2014 | n/a | n/a | n/a | n/a | n/a | | | | | | | |
| James Cr at Jamestown (water level only) | 100170 | 05/16/2014 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| New site 2014 | | | | | | | | | | | | | | |
| New site 2014 | | | | | | | | | | | | | | |
| New site 2014 | | | | | | | | | | | | | | |

The event performance of the A2 self-reporting sites will be tracked over the flood monitoring season.

D. Rain Sensor Timer Reporting Summary

The following analysis assumes that each rain sensor has a 12-hour timer-reporting interval. The worst performing rain sensors for the month are summarized (Table 5).

Table 5. Monthly Summary of Sensors with Poor Timer Performance (Sensor ID)

| Jan* | Feb* | Mar* | Apr | May | Jun | Jul | Aug | Sep | Oct* | Nov* | Dec* |
|------|------|------|------|--------|-----|-----|-----|-----|------|------|------|
| 4470 | 2710 | 2790 | 2810 | 1700 | | | | | | | |
| 2710 | 4470 | 2710 | 2330 | 4330 | | | | | | | |
| 2330 | 2730 | 4470 | 2360 | 2330 | | | | | | | |
| 4870 | 4550 | 4870 | 420 | 1710 | | | | | | | |
| 920 | 3010 | 3010 | 1700 | 940 | | | | | | | |
| 3010 | 4330 | 4330 | 1710 | 100150 | | | | | | | |

*- Only sensors that operate year-round (weather stations and stations in Boulder County) are included for the analysis in these months.

Sensors identified as having poor timer performance in multiple months are shaded with unique colors. A developing trend can thus be identified from the color shading as the year progresses.

III. Rain Sensor Event Reporting Summary

A. District-Wide Total Tip/Count Statistics

The incrementing reports from all 1-mm rain sensors were analyzed to quantify the District-wide statistical total monthly tip summary (Table 6). For the months of January, February, March, October, November and December only the stations that operate year-round are included in the rain event analysis. These stations include all weather stations and the stations in Boulder County.

Table 6. District-Wide Total Tip/Count Statistical Summary

| Statistical Parameter | Value | Comments |
|--|-------|--|
| Mean | 77.30 | Only the 1-mm rain sensors were included in the analysis |
| Median | 82 | Only the 1-mm rain sensors were included in the analysis |
| Standard deviation | 26.6 | Only the 1-mm rain sensors were included in the analysis |
| Mean plus three standard deviations | 157.2 | Only the 1-mm rain sensors were included in the analysis |
| Minimum total count | 14 | Highlands Ranch WTP (2710) |
| Maximum total count | 137 | Pinewood Springs (4510) |
| Sensors showing NO rain for the month | | None this month |

B. Monthly Average Tip/Count Summary

A monthly summary of the District-wide mean total tip/count is presented (Table 7).

Table 7. Monthly Summary of District-Wide Mean Total 1-mm Tip/Count

| Year | Jan* | Feb* | Mar* | Apr | May | Jun | Jul | Aug | Sep | Oct* | Nov* | Dec* | Ave |
|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| 2006 | 4.62 | 5.92 | 18.39 | 20.47 | 19.44 | 13.75 | 74.03 | 46.89 | 24.17 | 41.13 | 5.04 | 16.45 | 24.19 |
| 2007 | 11.56 | 5.40 | 29.75 | 65.03 | 68.30 | 15.87 | 36.20 | 46.38 | 22.13 | 29.50 | 6.54 | 11.29 | 29.00 |
| 2008 | 4.05 | 7.38 | 12.26 | 20.57 | 54.82 | 26.06 | 16.43 | 90.20 | 37.54 | 19.59 | 2.82 | 9.24 | 25.08 |
| 2009 | 6.33 | 3.11 | 11.37 | 59.26 | 63.45 | 68.00 | 65.00 | 20.00 | 27.29 | 30.24 | 11.00 | 5.60 | 30.89 |
| 2010 | 5.97 | 11.90 | 32.54 | 70.57 | 39.63 | 56.04 | 50.23 | 31.01 | 4.18 | 18.31 | 8.30 | 3.31 | 27.67 |
| 2011 | 6.78 | 7.45 | 7.54 | 33.94 | 92.68 | 39.42 | 90.87 | 18.25 | 37.67 | 25.73 | 10.41 | 13.59 | 32.03 |
| 2012 | 4.89 | 13.57 | 2.35 | 30.17 | 38.97 | 19.35 | 73.03 | 11.31 | 48.81 | 22.32 | 2.98 | 4.18 | 22.66 |
| 2013 | 2.96 | 14.31 | 21.86 | 35.96 | 45.87 | 16.39 | 52.33 | 50.63 | 229.74 | 29.64 | 5.86 | 4.00 | 42.46 |
| 2014 | 6.88 | 11.86 | 25.91 | 29.30 | 77.30 | | | | | | | | |

*- Only sensors that operate year-round (weather stations and stations in Boulder County) are included for the analysis in these months.

C. Sensors with a Jump of Six or More in the Sequential Count

Several sensors experienced a large jump in the sequential tip count (Table 8).

Table 8. Sensors with a Jump of 6 or More in Sequential Count

| Sensor Description | Sensor ID | Comment |
|--------------------|-----------|--|
| Hansen Rain | 4330 | Large jump in count May 7 – May 8 and May 10 – May 11 |
| Little Narrows | 4470 | Poor reception of data on May 23 from 7:29 PM to 7:40 PM |
| Fire Station #7 | 440 | Looks like May 8 problems with transmitter |

D. Sensor-by-Sensor Incrementing Count Summary

The system-wide reception rate of incrementing, 1-mm tip reports for the month was approximately 94 percent. A total of 13,723 incrementing reports were received and a total of 14,610 reports were expected. The total loss of incrementing reports for the month was approximately 6 percent. Those sensors with the worst event transmission performance are summarized (Table 9).

Table 9. Monthly Summary of Sensors with the Worst Performance

| Jan* | Feb* | Mar* | Apr | May | Jun | Jul | Aug | Sep | Oct* | Nov* | Dec* |
|------|------|------|--------|--------|-----|-----|-----|-----|------|------|------|
| 4520 | 2730 | 2790 | 2980 | 4330 | | | | | | | |
| 4010 | 4330 | 4790 | 2230 | 100150 | | | | | | | |
| 4170 | 4200 | 4530 | 4510 | 4470 | | | | | | | |
| 3030 | 4240 | 4510 | 3050 | 2980 | | | | | | | |
| 1460 | 4870 | 4240 | 2330 | 2330 | | | | | | | |
| 1700 | 4470 | 4870 | 100150 | 5900 | | | | | | | |

*-Only sensors that are operational year-round (weather stations and stations in Boulder County) are included for the analysis in these months.

Sensors identified as having poor event performance in multiple months are shaded with unique colors. A developing trend can thus be identified from the color shading as the year progresses.

IV. Heavy Radio Traffic Analysis

Periods exceeding 1,000 messages per hour are analyzed independently in an attempt to quantify data loss rates from rain sensors using their sequential tip count series.

A. The Heaviest Hourly Traffic Periods This Month

The hourly periods of highest radio traffic this month are shown (Table 10). The five heaviest hours of radio traffic are analyzed to quantify the number of missing rain reports for that hour.

Table 10. Periods of Heavy Radio Traffic (total load includes legacy and A2 reports)

| Day | Hour | Expected | Received | Total Load | Loss |
|-----|------|----------|----------|------------|--------|
| 21 | 14 | 280 | 242 | 2993 | 13.57% |
| 24 | 21 | 212 | 212 | 2631 | 0.00% |
| 24 | 20 | 349 | 349 | 2630 | 0.00% |
| 23 | 12 | 11 | 11 | 2484 | 0.00% |
| 8 | 0 | 304 | 302 | 2457 | 0.66% |

V. Unknown Device Analysis – Received Data Log

The ALERT IDs present in the audio signal received by the decoder are compared against a list of “active” device IDs that are defined within NovaStar. Those IDs received by the decoder that are not defined within NovaStar are considered to be “unknown” and may be the result of radio noise or problems with the telemetry system. The reception of “unknown” device reports for the month is summarized (Table 11).

Table 11. Summary of Unknown IDs

| Description | Conc & A2 | Legacy |
|--|-----------|---------|
| Total number of unknown IDs (IDs without a device definition) | 356 | 412 |
| Total reports from unknown IDs | 25,746 | 25,304 |
| Unknown IDs with only a single received report (potential noise) | 206 | 282 |
| Total reports from all IDs – RecData Log entire month | 651,670 | 351,946 |
| Unknown reports as a fraction of total reports | 3.95% | 7.19% |

The total number of reports from unknown sensors is very small relative to the total reports received for the month. Shown below (Table 12) are the total reports received from unknown sensor IDs for each month of the year.

Table 12. Monthly Summary of Total Reports from Unknown IDs (Conc & A2)

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|--------|-------|
| 2010 | 1,220 | 1,474 | 1,276 | 1,174 | 721 | 5,707 | 610 | 1,738 | 442 | 533 | 2,857 | 6,396 |
| 2011 | 1,231 | 2,165 | 3,065 | 1,254 | 2,051 | 439 | 489 | 456 | 191 | 683 | 747 | 861 |
| 2012 | 692 | 750 | 1,575 | 977 | 5,469 | 11,016 | 453 | 683 | 774 | 2,657 | 3,854 | 5,466 |
| 2013 | 4,265 | 994 | 1,100 | 2,589 | 3,623 | 6,973 | 5,230 | 1,070 | 4,429 | 781 | 13,459 | 1,213 |
| 2014 | 870 | 4,284 | 2,399 | 2,104 | 25,746 | | | | | | | |

The fraction of reports from unknown sensors relative to the total number of reports is shown below (Table 13).

Table 13. Monthly Percent of Unknown Sensor Reports (Conc & A2)

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 2010 | 0.42% | 0.56% | 0.38% | 0.32% | 0.20% | 1.61% | 0.17% | 0.49% | 0.13% | 0.16% | 0.93% | 1.88% |
| 2011 | 0.39% | 0.73% | 0.90% | 0.37% | 0.58% | 0.12% | 0.12% | 0.05% | 0.12% | 0.18% | 0.22% | 0.26% |
| 2012 | 0.30% | 0.25% | 0.43% | 0.26% | 1.37% | 2.74% | 0.11% | 0.18% | 0.20% | 0.72% | 1.15% | 1.62% |
| 2013 | 1.40% | 0.31% | 0.29% | 0.60% | 0.37% | 0.61% | 0.82% | 0.21% | 0.96% | 0.31% | 5.37% | 0.23% |
| 2014 | 0.14% | 0.94% | 0.40% | 0.34% | 3.95% | | | | | | | |

Any month shaded in yellow has an excessive number of reports from unknown sensors.

A number of “unknown” sensors had multiple reports, which may indicate the existence of a transmitter that is sending information on an ID that is not currently defined within NovaStar. The unknown IDs with multiple reports including the number of reports received by each are shown (Table 14).

Table 14. Reports Received by Unknown IDs

| Conc + A2 | | Legacy ALERT | | Comment |
|------------|---------|--------------|---------|---|
| Unknown ID | Reports | Unknown ID | Reports | |
| 1022 | 3670 | 1022 | 3637 | Unknown IDs coming from Nolte Pond (1020) |
| 1021 | 3647 | 1021 | 3599 | Unknown IDs coming from Nolte Pond (1020) |
| 1024 | 3419 | 1024 | 3392 | Unknown IDs coming from Nolte Pond (1020) |
| 1026 | 3406 | 1026 | 3368 | Unknown IDs coming from Nolte Pond (1020) |
| 1027 | 3353 | 1027 | 3285 | Unknown IDs coming from Nolte Pond (1020) |
| 1028 | 3260 | 1028 | 3186 | Unknown IDs coming from Nolte Pond (1020) |
| 1481 | 1120 | 1481 | 1096 | Unknown IDs coming from DIA at Third Creek (1480) |
| 1482 | 1111 | 1482 | 1090 | Unknown IDs coming from DIA at Third Creek (1480) |
| 1486 | 984 | 1486 | 967 | Unknown IDs coming from DIA at Third Creek (1480) |
| 1487 | 965 | 1487 | 949 | Unknown IDs coming from DIA at Third Creek (1480) |
| 2841 | 58 | 2841 | 0 | Unknown ID coming from Sulphur Gulch (2840) |

VI. Sensors with Invalid Reports

The following sensors had a large number of invalid reports (bit flip/contention errors/random decode):

| Sensor ID | Description | Invalid Reports | Comments |
|-----------|----------------------|-----------------|---|
| 1383 | Ferril Lake | 35 | All negative stage report for the month. OneRain: not a reliable site using a bubbler that is failing....trying to replace this spring. |
| 1023 | Lena at Nolte Pond | 2867 | Bad PT....OneRain looking to replace or relocate the site |
| 1483 | Third Creek at DIA | 237 | Revised validation parameters on NS5, June 1, 2014 |
| 1484 | Third Creek at DIA | 180 | Revised validation parameters on NS5, June 1, 2014 |
| 2870 | CC at Cottonwood | 68 | Rain gage counting down..... WET fixed on May 22, 2014 |
| 440 | Fire Station #7 | 26 | Bad transmitter on May 8 |
| 1623 | Slaughterhouse Gulch | 19 | Some large jumps in sequential stage are being invalidated by NS5 |
| 1663 | SPR at Henderson | 19 | Several large jumps in sequential stage readings are being invalidated |
| 503 | Havana Park | 18 | Revised validation parameters on NS5 |
| 203 | Leyden Reservoir | 16 | |
| 4453 | Lower Lefthand | 15 | Field maintenance |
| 4473 | Little Narrows | 14 | Field maintenance |

VII. Rainfall Alarms and Intensity Analysis

The following rainfall rate alarms from the Urban Drainage and Flood Control District NovaStar 5.0 Web Server were identified this month.

| No. | ID | Description | Alarm Type | Time of Alarm |
|-----|------|---|---|-----------------|
| 1 | 2970 | Rampart Range Road Precipitation-DG | 2970 Rampart Range Road 0.2" in 30 Minutes Rainfall | 5/8/2014 10:00 |
| 2 | 820 | East Toll Gate @ Buckley Precipitation-AR | Plains 10 minute rainfall | 5/20/2014 15:57 |
| 3 | 870 | Murphy Creek Golf Course Precipitation-AR | Plains 10 minute rainfall | 5/20/2014 16:06 |
| 4 | 870 | Murphy Creek Golf Course Precipitation-AR | Plains 1 hour rainfall | 5/20/2014 16:19 |
| 5 | 810 | Granby Ditch @ 6th Precipitation-AR | Plains 10 minute rainfall | 5/21/2014 14:20 |
| 6 | 700 | Toll Gate @ 6th Precipitation-AR | Plains 10 minute rainfall | 5/21/2014 14:23 |
| 7 | 800 | Sable Ditch @ Colfax Precipitation-AD | Plains 10 minute rainfall | 5/21/2014 14:27 |
| 8 | 810 | Granby Ditch @ 6th Precipitation-AR | Plains 1 hour rainfall | 5/21/2014 14:28 |
| 9 | 840 | Aurora Fire Station 12 Precipitation-AD | Plains 10 minute rainfall | 5/21/2014 14:29 |
| 10 | 800 | Sable Ditch @ Colfax Precipitation-AD | Plains 1 hour rainfall | 5/21/2014 14:36 |
| 11 | 850 | Flying J Truck Plaza Precipitation-AD | Plains 10 minute rainfall | 5/21/2014 14:36 |
| 12 | 840 | Aurora Fire Station 12 Precipitation-AD | Plains 1 hour rainfall | 5/21/2014 15:02 |
| 13 | 1570 | Brighton ETO Precipitation-WE | Plains 10 minute rainfall | 5/21/2014 23:55 |
| 14 | 1570 | Brighton ETO Precipitation-WE | Plains 1 hour rainfall | 5/22/2014 0:06 |
| 15 | 1550 | Lakewood CC Precipitation-JF | Jefferson County 10 minute rainfall | 5/22/2014 16:31 |
| 16 | 1550 | Lakewood CC Precipitation-JF | Jefferson County 1 hour rainfall | 5/22/2014 16:35 |
| 17 | 500 | Havana Park Precipitation-AR | Plains 10 minute rainfall | 5/22/2014 16:59 |
| 18 | 410 | Kelly Dam Precipitation-DN | Plains 10 minute rainfall | 5/22/2014 17:03 |
| 19 | 400 | Montview Park Precipitation-AD | Plains 10 minute rainfall | 5/22/2014 17:05 |
| 20 | 400 | Montview Park Precipitation-AD | Plains 1 hour rainfall | 5/22/2014 17:15 |
| 21 | 2950 | DC Public Works Precipitation-DG | Douglas County 1 hour-1 Inch rainfall | 5/23/2014 17:11 |
| 22 | 1700 | Cherry Creek at Champa Precipitation-DN | Plains 10 minute rainfall | 5/23/2014 17:47 |
| 23 | 1700 | Cherry Creek at Champa Precipitation-DN | Plains 1 hour rainfall | 5/23/2014 18:06 |
| 24 | 4110 | Betasso Precipitation-BO | FMC-BA 0.50" in 30 Min Rainfall | 5/23/2014 19:26 |
| 25 | 4290 | Red Hill Precipitation-BO | Boulder County 10 minute rainfall | 5/23/2014 19:30 |
| 26 | 4880 | Whispering Pines Precipitation-BO | FMC-BA 0.25" in 10 Min Rainfall | 5/23/2014 19:31 |
| 27 | 4160 | Sunshine Precipitation-BO | FMC-BA 0.25" in 10 Min Rainfall | 5/23/2014 19:34 |
| 28 | 4170 | Pine Brook Precipitation-BO | FMC-BA 0.50" in 30 Min Rainfall | 5/23/2014 19:37 |
| 29 | 1350 | Chatfield COE Precipitation-JF | Jefferson County 10 minute rainfall | 5/24/2014 18:18 |
| 30 | 1040 | Lena @ U.S. Highway 6 Precipitation-JF | Jefferson County 1 hour rainfall | 5/24/2014 19:58 |
| 31 | 4190 | Slaughterhouse Precipitation-BO | FMC-BA 0.50" in 30 Min Rainfall | 5/26/2014 1:29 |
| 32 | 4080 | Twin Sisters Precipitation-BO | FMC-BA 0.50" in 30 Min Rainfall | 5/30/2014 15:08 |
| 33 | 4130 | Swiss Peaks Precipitation-BO | FMC-BA 0.50" in 30 Min Rainfall | 5/30/2014 15:15 |
| 34 | 4730 | Sugarloaf Precipitation-BO | FMC-BA 0.50" in 30 Min Rainfall | 5/30/2014 15:16 |
| 35 | 4140 | Logan Mill Precipitation-BO | FMC-BA 0.25" in 10 Min Rainfall | 5/30/2014 15:24 |
| 36 | 4160 | Sunshine Precipitation-BO | FMC-BA 0.25" in 10 Min Rainfall | 5/30/2014 15:30 |
| 37 | 4360 | Justice Center Precipitation-BO | Boulder County 10 minute rainfall | 5/30/2014 15:34 |
| 38 | 4360 | Justice Center Precipitation-BO | Boulder County 1 hour rainfall | 5/30/2014 15:49 |
| 39 | 4820 | Doudy Draw Precipitation-BO | Boulder County 10 minute rainfall | 5/30/2014 15:50 |

| | | | | |
|----|------|--|-------------------------------------|-----------------|
| 40 | 4810 | Shanahan Ridge Precipitation-BO | Boulder County 10 minute rainfall | 5/30/2014 15:53 |
| 41 | 4830 | SBC at Sans Souci Precipitation-BO | Boulder County 10 minute rainfall | 5/30/2014 16:00 |
| 42 | 4810 | Shanahan Ridge Precipitation-BO | Boulder County 1 hour rainfall | 5/30/2014 16:01 |
| 43 | 4830 | SBC at Sans Souci Precipitation-BO | Boulder County 1 hour rainfall | 5/30/2014 16:11 |
| 44 | 4830 | SBC at Sans Souci Precipitation-BO | Boulder County 10 minute rainfall | 5/30/2014 16:11 |
| 45 | 1000 | Maple Grove Reservoir Precipitation-JF | Jefferson County 10 minute rainfall | 5/30/2014 16:48 |

General System Analysis

Database Name P:\A207-UDFCD-Data-Analysis\2014\5-2014\Novastar_extract_2014May.mdb

| | | | |
|-------------------------------|------------------|--------------------|-------|
| First Date in Database | 5/1/14 12:00 AM | Total Days | 31.0 |
| Last Date in Database | 5/31/14 11:59 PM | Total Hours | 744.0 |

Total Records Analyzed 651,670

| Records by Group | Conc & A2 Self Reports | Percent | ALERT Legacy Reports | Percent |
|-------------------------|------------------------|----------------|----------------------|----------------|
| Wind Data | 215,238 | 33.03% | 103,576 | 29.43% |
| Temperature | 85,891 | 13.18% | 39,155 | 11.13% |
| Relative Humidity | 78,045 | 11.98% | 38,827 | 11.03% |
| Water Level | 64,591 | 9.91% | 58,291 | 16.56% |
| Battery Voltage | 46,491 | 7.13% | 15,681 | 4.46% |
| Barometric Pressure | 36,383 | 5.58% | 20,621 | 5.86% |
| Precipitation | 30,214 | 4.64% | 21,544 | 6.12% |
| Unknown | 25,746 | 3.95% | 25,304 | 7.19% |
| Dew Point Temperature | 11,668 | 1.79% | 0 | 0.00% |
| Wind Chill | 11,654 | 1.79% | 0 | 0.00% |
| Peak Wind | 11,493 | 1.76% | 0 | 0.00% |
| Solar Radiation | 10,930 | 1.68% | 10,571 | 3.00% |
| Fuel Moisture | 5,969 | 0.92% | 5,865 | 1.67% |
| Fuel Temperature | 5,952 | 0.91% | 5,883 | 1.67% |
| Wind Direction | 4,944 | 0.76% | 0 | 0.00% |
| Soil Moisture | 2,958 | 0.45% | 2,888 | 0.82% |
| Repeater Status Report | 1,882 | 0.29% | 2,308 | 0.66% |
| 12Hr Status Report | 486 | 0.07% | 473 | 0.13% |
| Not Used | 349 | 0.05% | 334 | 0.09% |
| Flasher Status | 328 | 0.05% | 12 | 0.00% |
| Hayman Battery | 319 | 0.05% | 0 | 0.00% |
| Repeater Pass List | 65 | 0.01% | 541 | 0.15% |
| Handar 585 ALARM Status | 63 | 0.01% | 63 | 0.02% |
| Solar Power | 10 | 0.00% | 9 | 0.00% |
| ALERT/A2 Testing | 1 | 0.00% | 0 | 0.00% |
| Total | 651,670 | 100.00% | 351,946 | 100.00% |

| Traffic Loading Summary | Conc & A2 Self Reports | | ALERT Legacy | |
|-------------------------|------------------------|-----------------|--------------|------------------|
| Alert Reports | 651,670 | | 351,946 | |
| Average Daily Traffic | 21,022 | | 11,353 | |
| Average Hourly Traffic | 876 | | 473 | |
| Median Hourly Traffic | 830 | hour beginning | 438 | hour beginning |
| Peak Hourly Traffic | 1,838 | May 21, 2:00 PM | 1,155 | May 21, 2:00 PM |
| 2nd Max | 1,635 | May 24, 8:00 PM | 1,082 | May 24, 9:00 PM |
| 3rd Max | 1,550 | May 24, 9:00 PM | 1,014 | May 8, 12:00 AM |
| 4th Max | 1,532 | May 8, 12:00 AM | 1,013 | May 25, 11:00 AM |
| 5th Max | 1,510 | May 25, 3:00 PM | 1,000 | May 24, 8:00 PM |

Rain Timer Performance

Analyze Rain Sensors

| Rain Sensors | Description | Rcv | Timer | Exp | Performance |
|--------------|-------------------------------------|-----|-------|-----|-------------|
| 100140 | A2-Upper Sellers Gulch Precip | 10 | 19:12 | 62 | 16% |
| 5940 | Log Jumper | 17 | 12:00 | 62 | 27% |
| 1700 | Cherry Cr @ Champa | 29 | 7:20 | 62 | 47% |
| 4330 | Hansen Rain | 29 | 16:43 | 62 | 47% |
| 2330 | Morrison | 35 | 17:26 | 62 | 56% |
| 1710 | Shop Creek | 36 | 16:09 | 62 | 58% |
| 940 | Aurora Regional Pond | 38 | 11:13 | 62 | 61% |
| 4870 | SBC @ SB Road | 44 | 14:37 | 62 | 71% |
| 100150 | A2-Sellers Gulch at Haystack Precip | 44 | 15:22 | 62 | 71% |
| 1660 | SPR at Henderson | 46 | 15:19 | 62 | 74% |
| 2230 | Bear Cr below Cub | 46 | 13:07 | 62 | 74% |
| 2360 | Indian Hills | 47 | 14:06 | 62 | 76% |
| 2810 | Pine Cliff Road | 47 | 15:00 | 62 | 76% |
| 1620 | Slaughterhouse Glch | 48 | 14:13 | 62 | 77% |
| 4510 | Pinewood Springs | 48 | 12:21 | 62 | 77% |
| 4770 | Wx-Cal-Wood Ranch | 48 | 12:00 | 62 | 77% |
| 310 | Guy Hill Ranch | 49 | 12:37 | 62 | 79% |
| 2790 | Wx-W. Cherry Creek | 49 | 14:21 | 62 | 79% |
| 5720 | Four Mile Creek | 49 | 13:01 | 62 | 79% |
| 4470 | Little Narrows | 51 | 10:30 | 62 | 82% |
| 5810 | Stump Bump | 51 | 14:03 | 62 | 82% |
| 2320 | Choke Cherry Resvr | 52 | 12:19 | 62 | 84% |
| 4180 | Gold Lake | 52 | 11:58 | 62 | 84% |
| 1530 | Bear Creek @ Lowell | 53 | 12:33 | 62 | 85% |
| 4790 | Wx-Button Rock | 53 | 12:20 | 62 | 85% |
| 430 | Utah Park | 54 | 12:42 | 62 | 87% |
| 540 | Parker/Mississippi | 54 | 12:47 | 62 | 87% |
| 650 | Iloff Pond | 54 | 12:32 | 62 | 87% |
| 1520 | Wx-Marston Lake North | 54 | 12:55 | 62 | 87% |
| 2370 | Red Rocks Park | 54 | 12:33 | 62 | 87% |
| 4850 | Porphory Mtn | 54 | 13:07 | 62 | 87% |
| 1350 | Chatfield COE | 55 | 12:52 | 62 | 89% |
| 3010 | WX-EPC at Hwy 105 | 55 | 13:42 | 62 | 89% |
| 3060 | Fire Sta 47 | 55 | 12:00 | 62 | 89% |
| 4220 | Fling's | 55 | 12:41 | 62 | 89% |
| 4860 | Fairview Peak | 55 | 13:07 | 62 | 89% |
| 1050 | Jeffco Fairgrounds | 56 | 12:16 | 62 | 90% |
| 1400 | Upper Sloan Det. | 56 | 12:16 | 62 | 90% |
| 2240 | Cold Sprg Glch conf | 56 | 13:15 | 62 | 90% |
| 2750 | Wx-Castle Rock | 56 | 12:48 | 62 | 90% |
| 2840 | Sulphur Gulch | 56 | 12:37 | 62 | 90% |
| 150 | Nott Creek | 57 | 12:16 | 62 | 92% |
| 510 | Virginia Court | 57 | 11:57 | 62 | 92% |
| 700 | Toll Gate @ 6th | 57 | 12:33 | 62 | 92% |
| 2340 | El Rancho | 57 | 12:45 | 62 | 92% |
| 2920 | West Cherry Head-Douglas Cnty | 57 | 12:31 | 62 | 92% |
| 3030 | WX-Bingham Lake Park | 57 | 12:32 | 62 | 92% |
| 3050 | East/West Trailhead | 57 | 12:15 | 62 | 92% |
| 4040 | Martin Gulch | 57 | 12:17 | 62 | 92% |
| 4490 | Apple Valley | 57 | 11:58 | 62 | 92% |
| 110 | Ralston Reservoir | 58 | 12:14 | 62 | 94% |
| 330 | Van Bibber @ Hwy 93 | 58 | 11:57 | 62 | 94% |
| 520 | Jewell Detention | 58 | 12:28 | 62 | 94% |
| 610 | Harvard @ Jackson | 58 | 11:57 | 62 | 94% |

| | | | | | |
|------|-------------------------|----|-------|----|-----|
| 800 | Sable Ditch @ 18th | 58 | 12:31 | 62 | 94% |
| 840 | Fire Station 12 | 58 | 12:00 | 62 | 94% |
| 1100 | Louisville Rec Ctr | 58 | 12:15 | 62 | 94% |
| 1480 | Third Creek at DIA | 58 | 11:59 | 62 | 94% |
| 2270 | Cub Cr below Blue | 58 | 11:57 | 62 | 94% |
| 2850 | Cherry Cr bl Bayou Glch | 58 | 12:15 | 62 | 94% |
| 2860 | CC at Stroh Rd | 58 | 12:14 | 62 | 94% |
| 2870 | Cottonwood (Apache) | 58 | 12:15 | 62 | 94% |
| 2910 | East Cherry Cr-Douglas | 58 | 12:00 | 62 | 94% |
| 2960 | Indian Creek | 58 | 12:00 | 62 | 94% |
| 2980 | Dakan Rd | 58 | 12:31 | 62 | 94% |
| 3080 | Tallman Gulch | 58 | 12:32 | 62 | 94% |
| 4020 | Rio Grande | 58 | 12:16 | 62 | 94% |
| 4060 | Lakeshore | 58 | 11:58 | 62 | 94% |
| 4160 | Sunshine | 58 | 12:35 | 62 | 94% |
| 4190 | Slaughterhouse | 58 | 12:15 | 62 | 94% |
| 4250 | Geer Canyon | 58 | 12:14 | 62 | 94% |
| 4270 | Cannon Mountain | 58 | 11:57 | 62 | 94% |
| 4340 | Riverside | 58 | 12:16 | 62 | 94% |
| 4360 | Justice Center | 58 | 12:34 | 62 | 94% |
| 4550 | Boulder Jail | 58 | 12:14 | 62 | 94% |
| 4570 | St. Antons | 58 | 12:36 | 62 | 94% |
| 220 | Upper Leyden | 59 | 12:14 | 62 | 95% |
| 410 | Kelly Dam | 59 | 12:29 | 62 | 95% |
| 530 | Fire Station #19 | 59 | 12:14 | 62 | 95% |
| 600 | Harvard Gulch Park | 59 | 11:58 | 62 | 95% |
| 710 | Horseshoe Park Drop | 59 | 12:27 | 62 | 95% |
| 730 | No Name @ Quincy | 59 | 12:12 | 62 | 95% |
| 830 | Side Creek Park | 59 | 12:13 | 62 | 95% |
| 850 | Flying J | 59 | 12:00 | 62 | 95% |
| 1030 | NREL/S. Table Mtn. | 59 | 11:57 | 62 | 95% |
| 1060 | Heritage Square | 59 | 12:13 | 62 | 95% |
| 1300 | Hidden Lake | 59 | 11:58 | 62 | 95% |
| 1340 | Sanderson at Xavier | 59 | 12:14 | 62 | 95% |
| 1460 | Wx-Urban Farm | 59 | 12:16 | 62 | 95% |
| 2210 | Wx-Hiwan G.C. | 59 | 12:18 | 62 | 95% |
| 2250 | Rosedale | 59 | 11:57 | 62 | 95% |
| 2260 | Brook Forest | 59 | 12:14 | 62 | 95% |
| 2310 | Genesee Village | 59 | 11:58 | 62 | 95% |
| 2730 | Wx-Salisbury Park | 59 | 12:28 | 62 | 95% |
| 2800 | Columbine Open Space | 59 | 12:00 | 62 | 95% |
| 4010 | Crescent | 59 | 12:16 | 62 | 95% |
| 4030 | Red Garden | 59 | 12:16 | 62 | 95% |
| 4050 | Walker Ranch | 59 | 11:58 | 62 | 95% |
| 4080 | Twin Sisters | 59 | 11:58 | 62 | 95% |
| 4230 | Golden Age | 59 | 11:57 | 62 | 95% |
| 4300 | Big Elk Park | 59 | 12:13 | 62 | 95% |
| 4350 | Conifer Hill | 59 | 12:31 | 62 | 95% |
| 4530 | Winiger Ridge | 59 | 11:58 | 62 | 95% |
| 4810 | Shanahan Ridge | 59 | 11:57 | 62 | 95% |
| 100 | A2-Carr Street | 60 | 12:00 | 62 | 97% |
| 140 | Wx-Blue Mountain | 60 | 12:00 | 62 | 97% |
| 300 | Van Bibber Park | 60 | 11:58 | 62 | 97% |
| 420 | Expo Park | 60 | 11:58 | 62 | 97% |
| 500 | Havana Park | 60 | 11:57 | 62 | 97% |
| 620 | Quincy/Highline | 60 | 11:57 | 62 | 97% |
| 810 | Granby Ditch @ 6th | 60 | 11:57 | 62 | 97% |
| 920 | Wx-Aurora Town Hall | 60 | 12:00 | 62 | 97% |
| 1010 | Denver West | 60 | 11:57 | 62 | 97% |

| | | | | | |
|------|------------------------------|----|-------|----|-----|
| 1040 | Lena @ U.S. Hwy 6 | 60 | 12:15 | 62 | 97% |
| 1200 | Broomfield 3207 | 60 | 11:59 | 62 | 97% |
| 1440 | Wx-Elbert | 60 | 12:00 | 62 | 97% |
| 1550 | Lakewood CC | 60 | 11:57 | 62 | 97% |
| 1570 | Wx-Brighton Ditch | 60 | 12:16 | 62 | 97% |
| 1640 | SPR at Union Ave. | 60 | 12:12 | 62 | 97% |
| 1900 | Niver Detention | 60 | 12:13 | 62 | 97% |
| 2350 | Idledale | 60 | 12:14 | 62 | 97% |
| 2820 | Haskins Gulch Conf | 60 | 12:00 | 62 | 97% |
| 2880 | Happy Canyon at N Surrey Dr | 60 | 12:16 | 62 | 97% |
| 2890 | Spruce Mt - Douglas | 60 | 12:14 | 62 | 97% |
| 2900 | Russelville Gulch-Douglas | 60 | 12:00 | 62 | 97% |
| 4090 | Magnolia | 60 | 11:58 | 62 | 97% |
| 4110 | Betasso | 60 | 11:59 | 62 | 97% |
| 4240 | Sunset | 60 | 12:15 | 62 | 97% |
| 4290 | Red Hill | 60 | 12:15 | 62 | 97% |
| 4520 | Eagle Ridge | 60 | 12:00 | 62 | 97% |
| 4710 | Wx-Ward C-1 | 60 | 12:00 | 62 | 97% |
| 4820 | Doudy Draw | 60 | 11:57 | 62 | 97% |
| 5740 | Trail Creek | 60 | 12:15 | 62 | 97% |
| 5860 | Cedar Mountain | 60 | 12:00 | 62 | 97% |
| 120 | West Woods | 61 | 11:58 | 62 | 98% |
| 320 | Sports Complex | 61 | 11:58 | 62 | 98% |
| 400 | Montview Park | 61 | 11:58 | 62 | 98% |
| 720 | Confluence Pond | 61 | 11:58 | 62 | 98% |
| 750 | Wx-Quincy Reservoir | 61 | 11:57 | 62 | 98% |
| 760 | Mission Viejo Park | 61 | 11:57 | 62 | 98% |
| 820 | ETG @ Buckley | 61 | 11:57 | 62 | 98% |
| 870 | Murphy Creek GC | 61 | 12:00 | 62 | 98% |
| 950 | Piney at Liverpool | 61 | 11:57 | 62 | 98% |
| 970 | Pump Sta 3 | 61 | 12:00 | 62 | 98% |
| 1000 | A2-Maple Grove Resv. | 61 | 12:00 | 62 | 98% |
| 1110 | Gunbarrel | 61 | 12:13 | 62 | 98% |
| 1310 | LDC at 64th | 61 | 11:58 | 62 | 98% |
| 1320 | SPR at 3rd Ave | 61 | 11:58 | 62 | 98% |
| 1360 | Denver Zoo | 61 | 12:00 | 62 | 98% |
| 1370 | West Metro FS13 | 61 | 11:57 | 62 | 98% |
| 1420 | Wx-Diamond Hill | 61 | 12:00 | 62 | 98% |
| 1500 | Powers Park | 61 | 11:57 | 62 | 98% |
| 1600 | Englewood Dam | 61 | 11:57 | 62 | 98% |
| 1920 | Wx-Brighton | 61 | 12:00 | 62 | 98% |
| 2280 | Kinney Peak | 61 | 11:57 | 62 | 98% |
| 2710 | Wx-Highlands Ranch WTP | 61 | 12:00 | 62 | 98% |
| 2930 | Wx-Spring Valley Rd-DougCnty | 61 | 12:00 | 62 | 98% |
| 2940 | Willow Creek - DougCnty | 61 | 12:00 | 62 | 98% |
| 2990 | Wx-Tomah Rd-DougCnty | 61 | 12:00 | 62 | 98% |
| 3040 | CC @ Prairie Canyon Ranch | 61 | 12:00 | 62 | 98% |
| 4070 | Bear Peak | 61 | 11:58 | 62 | 98% |
| 4100 | Filter Plant | 61 | 11:59 | 62 | 98% |
| 4140 | Logan Mill | 61 | 11:58 | 62 | 98% |
| 4170 | Pine Brook | 61 | 11:57 | 62 | 98% |
| 4200 | Lazy Acres | 61 | 11:59 | 62 | 98% |
| 4260 | Taylor Mountain | 61 | 11:58 | 62 | 98% |
| 4310 | Johnny Park | 61 | 11:57 | 62 | 98% |
| 4320 | Lee Hill Rain 2012 | 61 | 11:58 | 62 | 98% |
| 4750 | Wx-Louisville Lake | 61 | 12:00 | 62 | 98% |
| 4830 | SBC @ San Souci | 61 | 11:58 | 62 | 98% |
| 4840 | SBC@S Boulder Ditch | 61 | 11:58 | 62 | 98% |
| 5730 | West Creek | 61 | 12:00 | 62 | 98% |

| | | | | | |
|--------|----------------------------|-----|-------|-----|------|
| 5880 | Hackett Mountain | 61 | 12:00 | 62 | 98% |
| 100100 | A2-Blackstone Precip | 61 | 12:00 | 62 | 98% |
| 100110 | A2-ETG @ Hampden Precip | 61 | 12:00 | 62 | 98% |
| 440 | Fire Station #7 | 62 | 11:57 | 62 | 100% |
| 900 | Wx-Aurora Reservoir | 62 | 11:45 | 62 | 100% |
| 2950 | DC Public Works | 62 | 12:00 | 62 | 100% |
| 3020 | Wx-West Creek WX | 62 | 11:38 | 62 | 100% |
| 3090 | A2-Highland Heritage Park | 62 | 12:00 | 62 | 100% |
| 4130 | Swiss Peaks | 62 | 11:59 | 62 | 100% |
| 4150 | Gold Hill | 62 | 11:58 | 62 | 100% |
| 4730 | Wx-Sugarloaf | 62 | 11:42 | 62 | 100% |
| 4880 | Whispering Pines | 63 | 11:41 | 62 | 102% |
| 210 | Leyden Confluence | 66 | 10:18 | 62 | 106% |
| 630 | Temple Pond at DTC | 66 | 11:19 | 62 | 106% |
| 1800 | Sand Creek Park | 72 | 9:14 | 62 | 116% |
| 1720 | Cherry Cr @ Steele | 74 | 9:04 | 62 | 119% |
| 200 | Leyden Reservoir | 89 | 7:35 | 62 | 144% |
| 640 | Goldsmith @ Eastman | 90 | 7:43 | 62 | 145% |
| 3070 | A2-Newlin Gulch Precip | 123 | 6:00 | 124 | 99% |
| 2970 | Rampart Range Rd-Satellite | 249 | | 62 | |
| 5900 | Horse Creek-Satellite | 453 | | 62 | |

| Rain Event Performance | | | Reports Received | 13,723 | Analyze Rain Sensors | | | | | | | | | | | | | | |
|-------------------------------------|----------------|-------------|------------------|--------|----------------------|--------|--------|--------|---------|-----|-----|------|------|---------|----------------|--|--|--|--------|
| | Systemwide Avg | Total Tips | 14,610 | | | | | | | | | | | | | | | | |
| | 93.93% | Data Loss | 6.07% | | | | | | | | | | | | | | | | |
| Description | Sensor | Performance | 1-tips | 2-tips | 3-tips | 4-tips | 5-tips | 6-tips | >6-tips | Rcv | Exp | Miss | Hold | Bucket | | | | | |
| Hansen Rain | 4330 | 47% | 34 | 11 | 2 | 0 | 2 | 0 | 3 | 49 | 104 | 23 | 0 | 0.03937 | | | | | |
| A2-Sellers Gulch at Haystack Precip | 100150 | 62% | 18 | 4 | 1 | 0 | 0 | 0 | 1 | 23 | 37 | 6 | 0 | 0.03937 | Mean | | | | 77.302 |
| Little Narrows | 4470 | 64% | 62 | 15 | 3 | 0 | 0 | 1 | 2 | 81 | 126 | 26 | 0 | 0.03937 | Median | | | | 82 |
| Dakan Rd | 2980 | 64% | 15 | 12 | 2 | 0 | 0 | 0 | 0 | 29 | 45 | 16 | 0 | 0.03937 | St. Dev | | | | 26.623 |
| Morrison | 2330 | 69% | 55 | 10 | 5 | 2 | 2 | 0 | 0 | 74 | 108 | 34 | 0 | 0.03937 | Mean plus 3 SD | | | | 157.17 |
| Horse Creek-Satellite | 5900 | 71% | 33 | 2 | 1 | 0 | 1 | 0 | 1 | 37 | 52 | 8 | 0 | 0.03937 | Min | | | | 14 |
| A2-Upper Sellers Gulch Precip | 100140 | 75% | 11 | 3 | 1 | 0 | 0 | 0 | 0 | 15 | 20 | 5 | 0 | 0.03937 | Max | | | | 137 |
| Choke Cherry Resvr | 2320 | 77% | 57 | 6 | 0 | 0 | 0 | 0 | 1 | 63 | 82 | 6 | 1 | 0.03937 | | | | | |
| Four Mile Creek | 5720 | 78% | 30 | 2 | 2 | 0 | 1 | 0 | 0 | 35 | 45 | 10 | 0 | 0.03937 | | | | | |
| Slaughterhouse Glch | 1620 | 79% | 57 | 6 | 0 | 0 | 1 | 0 | 1 | 64 | 81 | 10 | 0 | 0.03937 | | | | | |
| Indian Hills | 2360 | 81% | 59 | 14 | 2 | 0 | 0 | 0 | 0 | 75 | 93 | 18 | 0 | 0.03937 | | | | | |
| Pinewood Springs | 4510 | 82% | 95 | 14 | 3 | 0 | 1 | 0 | 0 | 113 | 137 | 24 | 0 | 0.03937 | | | | | |
| Parker/Mississippi | 540 | 84% | 49 | 9 | 1 | 0 | 0 | 0 | 0 | 59 | 70 | 11 | 0 | 0.03937 | | | | | |
| SBC @ SB Road | 4870 | 84% | 59 | 9 | 2 | 0 | 0 | 0 | 0 | 70 | 83 | 13 | 0 | 0.03937 | | | | | |
| Wx-Button Rock | 4790 | 85% | 80 | 11 | 3 | 0 | 0 | 0 | 0 | 94 | 111 | 17 | 0 | 0.03937 | | | | | |
| Shop Creek | 1710 | 86% | 32 | 6 | 0 | 0 | 0 | 0 | 0 | 38 | 44 | 6 | 0 | 0.03937 | | | | | |
| Toll Gate @ 6th | 700 | 86% | 60 | 9 | 1 | 0 | 0 | 0 | 0 | 70 | 81 | 11 | 0 | 0.03937 | | | | | |
| Red Rocks Park | 2370 | 86% | 70 | 13 | 0 | 0 | 0 | 0 | 0 | 83 | 96 | 13 | 0 | 0.03937 | | | | | |
| Guy Hill Ranch | 310 | 87% | 52 | 7 | 1 | 0 | 0 | 0 | 0 | 60 | 69 | 9 | 0 | 0.03937 | | | | | |
| Wx-W. Cherry Creek | 2790 | 87% | 47 | 8 | 0 | 0 | 0 | 0 | 0 | 55 | 63 | 8 | 0 | 0.03937 | | | | | |
| Eagle Ridge | 4520 | 88% | 55 | 9 | 0 | 0 | 0 | 0 | 0 | 64 | 73 | 9 | 0 | 0.03937 | | | | | |
| SPR at Henderson | 1660 | 88% | 57 | 7 | 1 | 0 | 0 | 0 | 0 | 65 | 74 | 9 | 0 | 0.03937 | | | | | |
| Bear Creek @ Lowell | 1530 | 89% | 78 | 7 | 2 | 0 | 0 | 0 | 0 | 87 | 98 | 11 | 0 | 0.03937 | | | | | |
| ETG @ Buckley | 820 | 89% | 65 | 7 | 1 | 0 | 0 | 0 | 0 | 73 | 82 | 9 | 0 | 0.03937 | | | | | |
| Ralston Reservoir | 110 | 90% | 77 | 10 | 0 | 0 | 0 | 0 | 0 | 87 | 97 | 10 | 0 | 0.03937 | | | | | |
| DC Public Works | 2950 | 90% | 63 | 8 | 0 | 0 | 0 | 0 | 0 | 71 | 79 | 8 | 0 | 0.03937 | | | | | |
| Cub Cr below Blue | 2270 | 90% | 72 | 9 | 0 | 0 | 0 | 0 | 0 | 81 | 90 | 9 | 0 | 0.03937 | | | | | |
| Aurora Regional Pond | 940 | 91% | 29 | 0 | 0 | 1 | 0 | 0 | 0 | 30 | 33 | 3 | 0 | 0.03937 | | | | | |
| Flying J | 850 | 91% | 77 | 4 | 2 | 0 | 0 | 0 | 0 | 83 | 91 | 8 | 0 | 0.03937 | | | | | |
| Havana Park | 500 | 91% | 77 | 6 | 1 | 0 | 0 | 0 | 0 | 84 | 92 | 8 | 0 | 0.03937 | | | | | |
| Walker Ranch | 4050 | 91% | 57 | 6 | 0 | 0 | 0 | 0 | 0 | 63 | 69 | 6 | 0 | 0.03937 | | | | | |
| Montview Park | 400 | 92% | 83 | 5 | 0 | 1 | 0 | 0 | 0 | 89 | 97 | 8 | 1 | 0.03937 | | | | | |
| Virginia Court | 510 | 92% | 61 | 6 | 0 | 0 | 0 | 0 | 0 | 67 | 73 | 6 | 0 | 0.03937 | | | | | |
| Denver Zoo | 1360 | 92% | 94 | 6 | 0 | 1 | 0 | 0 | 0 | 101 | 110 | 9 | 0 | 0.03937 | | | | | |
| Trail Creek | 5740 | 92% | 75 | 1 | 3 | 0 | 0 | 0 | 0 | 79 | 86 | 7 | 0 | 0.03937 | | | | | |
| Log Jumper | 5940 | 92% | 31 | 3 | 0 | 0 | 0 | 0 | 0 | 34 | 37 | 3 | 0 | 0.03937 | | | | | |
| Indian Creek | 2960 | 92% | 65 | 6 | 0 | 0 | 0 | 0 | 0 | 71 | 77 | 6 | 0 | 0.03937 | | | | | |
| Sand Creek Park | 1800 | 92% | 56 | 5 | 0 | 0 | 0 | 0 | 0 | 61 | 66 | 5 | 0 | 0.03937 | | | | | |
| Cannon Mountain | 4270 | 93% | 91 | 8 | 0 | 0 | 0 | 0 | 0 | 99 | 107 | 8 | 0 | 0.03937 | | | | | |
| Riverside | 4340 | 93% | 91 | 8 | 0 | 0 | 0 | 0 | 0 | 99 | 107 | 8 | 0 | 0.03937 | | | | | |
| Doudy Draw | 4820 | 93% | 83 | 5 | 1 | 0 | 0 | 0 | 0 | 89 | 96 | 7 | 0 | 0.03937 | | | | | |
| Slaughterhouse | 4190 | 93% | 100 | 6 | 1 | 0 | 0 | 0 | 0 | 107 | 115 | 8 | 0 | 0.03937 | | | | | |
| Jewell Detention | 520 | 93% | 50 | 4 | 0 | 0 | 0 | 0 | 0 | 54 | 58 | 4 | 0 | 0.03937 | | | | | |
| Van Bibber @ Hwy 93 | 330 | 93% | 103 | 6 | 1 | 0 | 0 | 0 | 0 | 110 | 118 | 8 | 0 | 0.03937 | | | | | |
| CC at Stroh Rd | 2860 | 93% | 51 | 4 | 0 | 0 | 0 | 0 | 0 | 55 | 59 | 4 | 0 | 0.03937 | | | | | |
| Bear Cr below Cub | 2230 | 93% | 64 | 5 | 0 | 0 | 0 | 0 | 0 | 69 | 74 | 5 | 0 | 0.03937 | | | | | |
| Cold Sprg Glch conf | 2240 | 93% | 77 | 6 | 0 | 0 | 0 | 0 | 0 | 83 | 89 | 6 | 0 | 0.03937 | | | | | |
| Sulphur Gulch | 2840 | 93% | 39 | 3 | 0 | 0 | 0 | 0 | 0 | 42 | 45 | 3 | 0 | 0.03937 | | | | | |
| Idledale | 2350 | 93% | 79 | 6 | 0 | 0 | 0 | 0 | 0 | 85 | 91 | 6 | 0 | 0.03937 | | | | | |
| Iliff Pond | 650 | 93% | 53 | 4 | 0 | 0 | 0 | 0 | 0 | 57 | 61 | 4 | 0 | 0.03937 | | | | | |
| Horseshoe Park Drop | 710 | 93% | 54 | 2 | 1 | 0 | 0 | 0 | 0 | 57 | 61 | 4 | 0 | 0.03937 | | | | | |
| Wx-Castle Rock | 2750 | 93% | 40 | 3 | 0 | 0 | 0 | 0 | 0 | 43 | 46 | 3 | 0 | 0.03937 | | | | | |

| | | | | | | | | | | | | | | |
|-------------------------------|------|-----|-----|---|---|---|---|---|---|-----|-----|---|---|---------|
| Third Creek at DIA | 1480 | 94% | 82 | 4 | 1 | 0 | 0 | 0 | 0 | 87 | 93 | 6 | 0 | 0.03937 |
| Gold Lake | 4180 | 94% | 81 | 6 | 0 | 0 | 0 | 0 | 0 | 87 | 93 | 6 | 0 | 0.03937 |
| Justice Center | 4360 | 94% | 109 | 6 | 1 | 0 | 0 | 0 | 0 | 116 | 124 | 8 | 0 | 0.03937 |
| Granby Ditch @ 6th | 810 | 94% | 95 | 7 | 0 | 0 | 0 | 0 | 0 | 102 | 109 | 7 | 0 | 0.03937 |
| Fire Station 12 | 840 | 94% | 83 | 6 | 0 | 0 | 0 | 0 | 0 | 89 | 95 | 6 | 0 | 0.03937 |
| Cherry Cr @ Champa | 1700 | 94% | 42 | 3 | 0 | 0 | 0 | 0 | 0 | 45 | 48 | 3 | 0 | 0.03937 |
| Cherry Cr bl Bayou Glch | 2850 | 94% | 43 | 3 | 0 | 0 | 0 | 0 | 0 | 46 | 49 | 3 | 0 | 0.03937 |
| Wx-Ward C-1 | 4710 | 94% | 90 | 6 | 0 | 0 | 0 | 0 | 0 | 96 | 102 | 6 | 0 | 0.03937 |
| Kinney Peak | 2280 | 94% | 62 | 2 | 1 | 0 | 0 | 0 | 0 | 65 | 69 | 4 | 0 | 0.03937 |
| Shanahan Ridge | 4810 | 94% | 108 | 7 | 0 | 0 | 0 | 0 | 0 | 115 | 122 | 7 | 0 | 0.03937 |
| Lakewood CC | 1550 | 94% | 111 | 7 | 0 | 0 | 0 | 0 | 0 | 118 | 125 | 7 | 2 | 0.03937 |
| Lakeshore | 4060 | 94% | 80 | 5 | 0 | 0 | 0 | 0 | 0 | 85 | 90 | 5 | 0 | 0.03937 |
| Powers Park | 1500 | 95% | 115 | 7 | 0 | 0 | 0 | 0 | 0 | 122 | 129 | 7 | 0 | 0.03937 |
| WX-Bingham Lake Park | 3030 | 95% | 66 | 4 | 0 | 0 | 0 | 0 | 0 | 70 | 74 | 4 | 0 | 0.03937 |
| Broomfield 3207 | 1200 | 95% | 51 | 3 | 0 | 0 | 0 | 0 | 0 | 54 | 57 | 3 | 0 | 0.03937 |
| Chatfield COE | 1350 | 95% | 85 | 5 | 0 | 0 | 0 | 0 | 0 | 90 | 95 | 5 | 0 | 0.03937 |
| Fling's | 4220 | 95% | 85 | 5 | 0 | 0 | 0 | 0 | 0 | 90 | 95 | 5 | 0 | 0.03937 |
| Lena @ U.S. Hwy 6 | 1040 | 95% | 87 | 3 | 1 | 0 | 0 | 0 | 0 | 91 | 96 | 5 | 0 | 0.03937 |
| Pump Sta 3 | 970 | 95% | 69 | 4 | 0 | 0 | 0 | 0 | 0 | 73 | 77 | 4 | 0 | 0.03937 |
| Big Elk Park | 4300 | 95% | 69 | 4 | 0 | 0 | 0 | 0 | 0 | 73 | 77 | 4 | 0 | 0.03937 |
| Geer Canyon | 4250 | 95% | 88 | 3 | 1 | 0 | 0 | 0 | 0 | 92 | 97 | 5 | 0 | 0.03937 |
| East/West Trailhead | 3050 | 95% | 35 | 2 | 0 | 0 | 0 | 0 | 0 | 37 | 39 | 2 | 0 | 0.03937 |
| Jeffco Fairgrounds | 1050 | 95% | 72 | 2 | 1 | 0 | 0 | 0 | 0 | 75 | 79 | 4 | 0 | 0.03937 |
| Conifer Hill | 4350 | 95% | 91 | 5 | 0 | 0 | 0 | 0 | 0 | 96 | 101 | 5 | 0 | 0.03937 |
| Leyden Reservoir | 200 | 95% | 73 | 4 | 0 | 0 | 0 | 0 | 0 | 77 | 81 | 4 | 0 | 0.03937 |
| West Cherry Head-Douglas Cnty | 2920 | 95% | 38 | 2 | 0 | 0 | 0 | 0 | 0 | 40 | 42 | 2 | 0 | 0.03937 |
| Betasso | 4110 | 95% | 98 | 3 | 1 | 0 | 0 | 0 | 0 | 102 | 107 | 5 | 0 | 0.03937 |
| Utah Park | 430 | 95% | 99 | 3 | 1 | 0 | 0 | 0 | 0 | 103 | 108 | 5 | 0 | 0.03937 |
| Niver Detention | 1900 | 95% | 59 | 3 | 0 | 0 | 0 | 0 | 0 | 62 | 65 | 3 | 0 | 0.03937 |
| Goldsmith @ Eastman | 640 | 95% | 20 | 1 | 0 | 0 | 0 | 0 | 0 | 21 | 22 | 1 | 0 | 0.03937 |
| Expo Park | 420 | 96% | 82 | 4 | 0 | 0 | 0 | 0 | 0 | 86 | 90 | 4 | 0 | 0.03937 |
| Twin Sisters | 4080 | 96% | 85 | 4 | 0 | 0 | 0 | 0 | 0 | 89 | 93 | 4 | 0 | 0.03937 |
| Side Creek Park | 830 | 96% | 64 | 3 | 0 | 0 | 0 | 0 | 0 | 67 | 70 | 3 | 0 | 0.03937 |
| Denver West | 1010 | 96% | 86 | 4 | 0 | 0 | 0 | 0 | 0 | 90 | 94 | 4 | 0 | 0.03937 |
| LDC at 64th | 1310 | 96% | 86 | 4 | 0 | 0 | 0 | 0 | 0 | 90 | 94 | 4 | 0 | 0.03937 |
| Fire Sta 47 | 3060 | 96% | 43 | 2 | 0 | 0 | 0 | 0 | 0 | 45 | 47 | 2 | 0 | 0.03937 |
| Tallman Gulch | 3080 | 96% | 43 | 2 | 0 | 0 | 0 | 0 | 0 | 45 | 47 | 2 | 0 | 0.03937 |
| NREL/S. Table Mtn. | 1030 | 96% | 88 | 4 | 0 | 0 | 0 | 0 | 0 | 92 | 96 | 4 | 0 | 0.03937 |
| Bear Peak | 4070 | 96% | 67 | 3 | 0 | 0 | 0 | 0 | 0 | 70 | 73 | 3 | 0 | 0.03937 |
| Murphy Creek GC | 870 | 96% | 69 | 3 | 0 | 0 | 0 | 0 | 0 | 72 | 75 | 3 | 0 | 0.03937 |
| Red Garden | 4030 | 96% | 93 | 4 | 0 | 0 | 0 | 0 | 0 | 97 | 101 | 4 | 0 | 0.03937 |
| St. Antons | 4570 | 96% | 94 | 4 | 0 | 0 | 0 | 0 | 0 | 98 | 102 | 4 | 0 | 0.03937 |
| Crescent | 4010 | 96% | 99 | 2 | 1 | 0 | 0 | 0 | 0 | 102 | 106 | 4 | 0 | 0.03937 |
| Red Hill | 4290 | 96% | 98 | 4 | 0 | 0 | 0 | 0 | 0 | 102 | 106 | 4 | 0 | 0.03937 |
| Wx-Brighton | 1920 | 96% | 74 | 3 | 0 | 0 | 0 | 0 | 0 | 77 | 80 | 3 | 0 | 0.03937 |
| Wx-Spring Valley Rd-DougCnty | 2930 | 96% | 25 | 1 | 0 | 0 | 0 | 0 | 0 | 26 | 27 | 1 | 0 | 0.03937 |
| Upper Sloan Det. | 1400 | 96% | 77 | 3 | 0 | 0 | 0 | 0 | 0 | 80 | 83 | 3 | 0 | 0.03937 |
| Wx-Quincy Reservoir | 750 | 96% | 26 | 1 | 0 | 0 | 0 | 0 | 0 | 27 | 28 | 1 | 0 | 0.03937 |
| Sanderson at Xavier | 1340 | 96% | 104 | 4 | 0 | 0 | 0 | 0 | 0 | 108 | 112 | 4 | 0 | 0.03937 |
| East Cherry Cr-Douglas | 2910 | 96% | 26 | 1 | 0 | 0 | 0 | 0 | 0 | 27 | 28 | 1 | 0 | 0.03937 |
| Cedar Mountain | 5860 | 96% | 78 | 3 | 0 | 0 | 0 | 0 | 0 | 81 | 84 | 3 | 0 | 0.03937 |
| Columbine Open Space | 2800 | 96% | 53 | 2 | 0 | 0 | 0 | 0 | 0 | 55 | 57 | 2 | 0 | 0.03937 |
| Johnny Park | 4310 | 96% | 106 | 4 | 0 | 0 | 0 | 0 | 0 | 110 | 114 | 4 | 0 | 0.03937 |
| West Metro FS13 | 1370 | 97% | 80 | 3 | 0 | 0 | 0 | 0 | 0 | 83 | 86 | 3 | 0 | 0.03937 |
| Brook Forest | 2260 | 97% | 81 | 3 | 0 | 0 | 0 | 0 | 0 | 84 | 87 | 3 | 0 | 0.03937 |
| Rosedale | 2250 | 97% | 83 | 3 | 0 | 0 | 0 | 0 | 0 | 86 | 89 | 3 | 0 | 0.03937 |
| Lazy Acres | 4200 | 97% | 83 | 3 | 0 | 0 | 0 | 0 | 0 | 86 | 89 | 3 | 0 | 0.03937 |

| | | | | | | | | | | | | | | | |
|----------------------------|------|------|-----|---|---|---|---|---|---|---|-----|-----|---|---|---------|
| Leyden Confluence | 210 | 97% | 84 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 87 | 90 | 3 | 0 | 0.03937 |
| Genesee Village | 2310 | 97% | 86 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 88 | 91 | 3 | 0 | 0.03937 |
| Harvard Gulch Park | 600 | 97% | 86 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 89 | 92 | 3 | 0 | 0.03937 |
| Wx-Marston Lake North | 1520 | 97% | 116 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 119 | 123 | 4 | 0 | 0.03937 |
| Boulder Jail | 4550 | 97% | 88 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 91 | 94 | 3 | 0 | 0.03937 |
| Rio Grande | 4020 | 97% | 89 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 92 | 95 | 3 | 0 | 0.03937 |
| Martin Gulch | 4040 | 97% | 89 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 92 | 95 | 3 | 0 | 0.03937 |
| Wx-Tomah Rd-DougCnty | 2990 | 97% | 60 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 64 | 2 | 0 | 0.03937 |
| Filter Plant | 4100 | 97% | 92 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 95 | 98 | 3 | 0 | 0.03937 |
| Taylor Mountain | 4260 | 97% | 92 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 95 | 98 | 3 | 0 | 0.03937 |
| Wx-Cal-Wood Ranch | 4770 | 97% | 93 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 96 | 99 | 3 | 0 | 0.03937 |
| Sable Ditch @ 18th | 800 | 97% | 96 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 99 | 102 | 3 | 0 | 0.03937 |
| Wx-Aurora Town Hall | 920 | 97% | 96 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 99 | 102 | 3 | 0 | 0.03937 |
| Spruce Mt - Douglas | 2890 | 97% | 32 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 34 | 1 | 0 | 0.03937 |
| Golden Age | 4230 | 97% | 64 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 66 | 68 | 2 | 0 | 0.03937 |
| SBC @ San Souci | 4830 | 97% | 99 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 101 | 104 | 3 | 0 | 0.03937 |
| Temple Pond at DTC | 630 | 97% | 102 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 105 | 108 | 3 | 1 | 0.03937 |
| SPR at Union Ave. | 1640 | 97% | 34 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 36 | 1 | 0 | 0.03937 |
| Confluence Pond | 720 | 97% | 35 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 37 | 1 | 0 | 0.03937 |
| Wx-Elbert | 1440 | 97% | 36 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 38 | 1 | 0 | 0.03937 |
| Fire Station #19 | 530 | 97% | 73 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 75 | 77 | 2 | 0 | 0.03937 |
| Upper Leyden | 220 | 97% | 37 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 39 | 1 | 0 | 0.03937 |
| Mission Viejo Park | 760 | 98% | 39 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 41 | 1 | 0 | 0.03937 |
| Cherry Cr @ Steele | 1720 | 98% | 78 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 82 | 2 | 1 | 0.03937 |
| Heritage Square | 1060 | 98% | 80 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 82 | 84 | 2 | 0 | 0.03937 |
| Kelly Dam | 410 | 98% | 86 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 88 | 90 | 2 | 0 | 0.03937 |
| Apple Valley | 4490 | 98% | 87 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 89 | 91 | 2 | 0 | 0.03937 |
| Whispering Pines | 4880 | 98% | 87 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 89 | 91 | 2 | 0 | 0.03937 |
| Wx-Blue Mountain | 140 | 98% | 93 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 95 | 97 | 2 | 0 | 0.03937 |
| Rampart Range Rd-Satellite | 2970 | 98% | 48 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 49 | 50 | 1 | 0 | 0.03937 |
| Louisville Rec Ctr | 1100 | 98% | 49 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 51 | 1 | 0 | 0.03937 |
| Quincy/Highline | 620 | 98% | 52 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 53 | 54 | 1 | 0 | 0.03937 |
| SPR at 3rd Ave | 1320 | 98% | 112 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 114 | 116 | 2 | 0 | 0.03937 |
| Hackett Mountain | 5880 | 98% | 59 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 61 | 1 | 0 | 0.03937 |
| CC @ Prairie Canyon Ranch | 3040 | 98% | 61 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 63 | 1 | 0 | 0.03937 |
| Haskins Gulch Conf | 2820 | 98% | 62 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 63 | 64 | 1 | 0 | 0.03937 |
| Wx-Hiwan G.C. | 2210 | 99% | 69 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 70 | 71 | 1 | 0 | 0.03937 |
| Sunset | 4240 | 99% | 70 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 71 | 72 | 1 | 0 | 0.03937 |
| Lee Hill Rain 2012 | 4320 | 99% | 72 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 73 | 74 | 1 | 0 | 0.03937 |
| Wx-Urban Farm | 1460 | 99% | 77 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 78 | 79 | 1 | 0 | 0.03937 |
| Harvard @ Jackson | 610 | 99% | 79 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 81 | 1 | 0 | 0.03937 |
| Pine Brook | 4170 | 99% | 81 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 82 | 83 | 1 | 0 | 0.03937 |
| Magnolia | 4090 | 99% | 88 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 89 | 90 | 1 | 0 | 0.03937 |
| Logan Mill | 4140 | 99% | 89 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 90 | 91 | 1 | 0 | 0.03937 |
| Wx-Brighton Ditch | 1570 | 99% | 95 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 96 | 97 | 1 | 2 | 0.03937 |
| SBC@S Boulder Ditch | 4840 | 99% | 95 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 96 | 97 | 1 | 0 | 0.03937 |
| Hidden Lake | 1300 | 99% | 96 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 97 | 98 | 1 | 0 | 0.03937 |
| West Woods | 120 | 99% | 97 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 98 | 99 | 1 | 0 | 0.03937 |
| A2-Maple Grove Resv. | 1000 | 99% | 98 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 99 | 100 | 1 | 1 | 0.03937 |
| Gold Hill | 4150 | 99% | 98 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 99 | 100 | 1 | 0 | 0.03937 |
| Van Bibber Park | 300 | 99% | 100 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 101 | 102 | 1 | 0 | 0.03937 |
| Swiss Peaks | 4130 | 99% | 102 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 103 | 104 | 1 | 0 | 0.03937 |
| A2-Carr Street | 100 | 100% | 110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 110 | 110 | 0 | 0 | 0.03937 |
| Nott Creek | 150 | 100% | 93 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 93 | 93 | 0 | 0 | 0.03937 |
| Sports Complex | 320 | 100% | 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 90 | 90 | 0 | 0 | 0.03937 |
| No Name @ Quincy | 730 | 100% | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 50 | 0 | 0 | 0.03937 |
| Wx-Aurora Reservoir | 900 | 100% | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 43 | 0 | 0 | 0.03937 |

| | | | | | | | | | | | | | | |
|-----------------------------|--------|------------|-------|-----|----|----|---|---|----|-------|-------|-----|----|---------|
| Piney at Liverpool | 950 | 100% | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 52 | 0 | 0 | 0.03937 |
| Gunbarrel | 1110 | 100% | 68 | 0 | 0 | 0 | 0 | 0 | 0 | 68 | 68 | 0 | 0 | 0.03937 |
| Wx-Diamond Hill | 1420 | 100% | 92 | 0 | 0 | 0 | 0 | 0 | 0 | 92 | 92 | 0 | 0 | 0.03937 |
| Englewood Dam | 1600 | 100% | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 37 | 0 | 0 | 0.03937 |
| EI Rancho | 2340 | 100% | 57 | 0 | 0 | 0 | 0 | 0 | 0 | 57 | 57 | 0 | 0 | 0.03937 |
| Wx-Highlands Ranch WTP | 2710 | 100% | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 14 | 0 | 0 | 0.03937 |
| Wx-Salisbury Park | 2730 | 100% | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 17 | 0 | 0 | 0.03937 |
| Pine Cliff Road | 2810 | 100% | 54 | 0 | 0 | 0 | 0 | 0 | 0 | 54 | 54 | 0 | 0 | 0.03937 |
| Cottonwood (Apache) | 2870 | 100% | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 16 | 0 | 0 | 0.03937 |
| Happy Canyon at N Surrey Dr | 2880 | 100% | 59 | 0 | 0 | 0 | 0 | 0 | 0 | 59 | 59 | 0 | 0 | 0.03937 |
| Russelville Gulch-Douglas | 2900 | 100% | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 45 | 0 | 0 | 0.03937 |
| Willow Creek - DougCnty | 2940 | 100% | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 42 | 42 | 0 | 0 | 0.03937 |
| Wx-West Creek WX | 3020 | 100% | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 52 | 0 | 0 | 0.03937 |
| A2-Newlin Gulch Precip | 3070 | 100% | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 52 | 0 | 0 | 0.03937 |
| A2-Highland Heritage Park | 3090 | 100% | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 48 | 48 | 0 | 0 | 0.03937 |
| Sunshine | 4160 | 100% | 92 | 0 | 0 | 0 | 0 | 0 | 0 | 92 | 92 | 0 | 0 | 0.03937 |
| Winiger Ridge | 4530 | 100% | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 20 | 0 | 0 | 0.03937 |
| Wx-Sugarloaf | 4730 | 100% | 93 | 0 | 0 | 0 | 0 | 0 | 0 | 93 | 93 | 0 | 0 | 0.03937 |
| Wx-Louisville Lake | 4750 | 100% | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 58 | 58 | 0 | 0 | 0.03937 |
| West Creek | 5730 | 100% | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 37 | 0 | 0 | 0.03937 |
| Stump Bump | 5810 | 100% | 49 | 0 | 0 | 0 | 0 | 0 | 0 | 49 | 49 | 0 | 0 | 0.03937 |
| A2-Blackstone Precip | 100100 | 100% | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 37 | 0 | 0 | 0.03937 |
| A2-ETG @ Hampden Precip | 100110 | 100% | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 60 | 0 | 0 | 0.03937 |
| | | Total Tips | 13016 | 637 | 56 | 5 | 8 | 1 | 9 | 13723 | 14610 | 801 | 9 | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fire Station #7 | 440 | 59% | 205 | 45 | 28 | 15 | 5 | 9 | 16 | 307 | 518 | 211 | 8 | 0.03937 |
| Porphory Mtn | 4850 | 84% | 295 | 46 | 7 | 2 | 0 | 0 | 0 | 350 | 416 | 66 | 19 | 0.01 |
| Fairview Peak | 4860 | 95% | 356 | 17 | 1 | 0 | 0 | 0 | 0 | 374 | 393 | 19 | 25 | 0.01 |
| WX-EPC at Hwy 105 | 3010 | 97% | 187 | 5 | 0 | 0 | 0 | 0 | 0 | 192 | 197 | 5 | 0 | 0.01 |

2014 Monthly Peak Hour ALERT Radio Traffic Summary

