Memo

Date: December 16, 2015
To: Kevin Stewart
From: Markus Ritsch
Subject: **November 2015 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 November 1 through November 30, 2015.

II. General System Analysis Summary

In 2015 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 reports received by each channel.

Table 1. Reception of Data at Diamond Hill (Legacy, ALERT2 and Concentrator Reports)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legacy	216,461	241,285	268,551	282,306	345,191	348,979	284,647	269,298	246,919	268,738	234,612	
Concentrator	366,229	405,210	443,612	458,979	499,841	511,002	449,469	438,917	403,457	444,814	400,414	
ALERT2	172,927	233,617	286,836	295,399	319,764	302,746	320,675	376,339	358,553	334,148	239,426	
TOTAL	**755,617**	**880,112**	**998,999**	**1,036,684**	**1,164,796**	**1,162,727**	**1,054,791**	**1,084,554**	**1,008,929**	**1,047,700**	**874,452**	**0**
Conc+A2	539,156	638,827	730,448	754,378	819,605	813,748	770,144	815,256	762,010	778,962	639,840	
Conc/Leg	1.69	1.68	1.65	1.63	1.45	1.46	1.58	1.63	1.63	1.66	1.71	
DataChron	529,216	564,798	652,811	702,865	777,203	772,052	742,221	755,645	716,065	694,527	622,266	

The District operates two redundant NovaStar5 base stations: the primary (ns5a) at Diamond Hill and a redundant base (ns5b) at Greenhouse Data. Additional analyses are conducted on the data received by these two base stations (Table 2). The data received by both base stations for the month are shown below.

Table 2. Comparison of Data Reception by ns5a and ns5b

NS5A (Diamond Hill)	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**
Legacy	216,461	241,285	268,551	282,306	345,191	348,979	284,647	269,298	246,919	270,076	234,612
Concentrator	366,229	405,210	443,612	458,979	499,841	511,002	449,469	438,917	403,457	443,928	400,414
ALERT2	172,927	233,617	286,836	295,399	319,764	302,746	320,675	376,339	358,553	330,561	239,426
NS5B (Greenhouse)											
Legacy	244,232	241,143	268,417	262,549	341,926	341,600	288,199	269,168	246,796	268,738	234,514
Concentrator	409,951	405,875	444,660	430,407	499,657	502,908	456,087	440,313	405,243	444,814	401,831
ALERT2	191,784	234,150	289,044	275,955	319,750	299,635	328,435	381,397	365,140	334,148	242,539
Diff (NS5a-NS5b)											
Legacy (Digi One)	-27,771	142	134	19,757	3,265	7,379	-3,552	130	123	1,338	98
Concentrator	-43,722	-665	-1,048	28,572	184	8,094	-6,618	-1,396	-1,786	-886	-1,417
ALERT2 (B2010)	-18,857	-533	-2,208	19,444	14	3,111	-7,760	-5,058	-6,587	-3,587	-3,113
Comments	Failed hard drive on ns5a		Tot A2 diff 1%	Outage on ns5b this month			Ns5a data collection was down on July 1		Total A2 diff about 1%		

For the last three months the feed from the legacy decoder (DigiOne) is better to the Diamond Hill base that to Greenhouse while the opposite is true for the B2010 ALERT2 decoder. This would lead one to believe the difference lies not in the network architecture between Diamond Hill and Greenhouse but rather has something to do with the serial-IP device.

The daily ratio of total concentrator reports received versus total legacy ALERT reports received is shown (Figure 1).

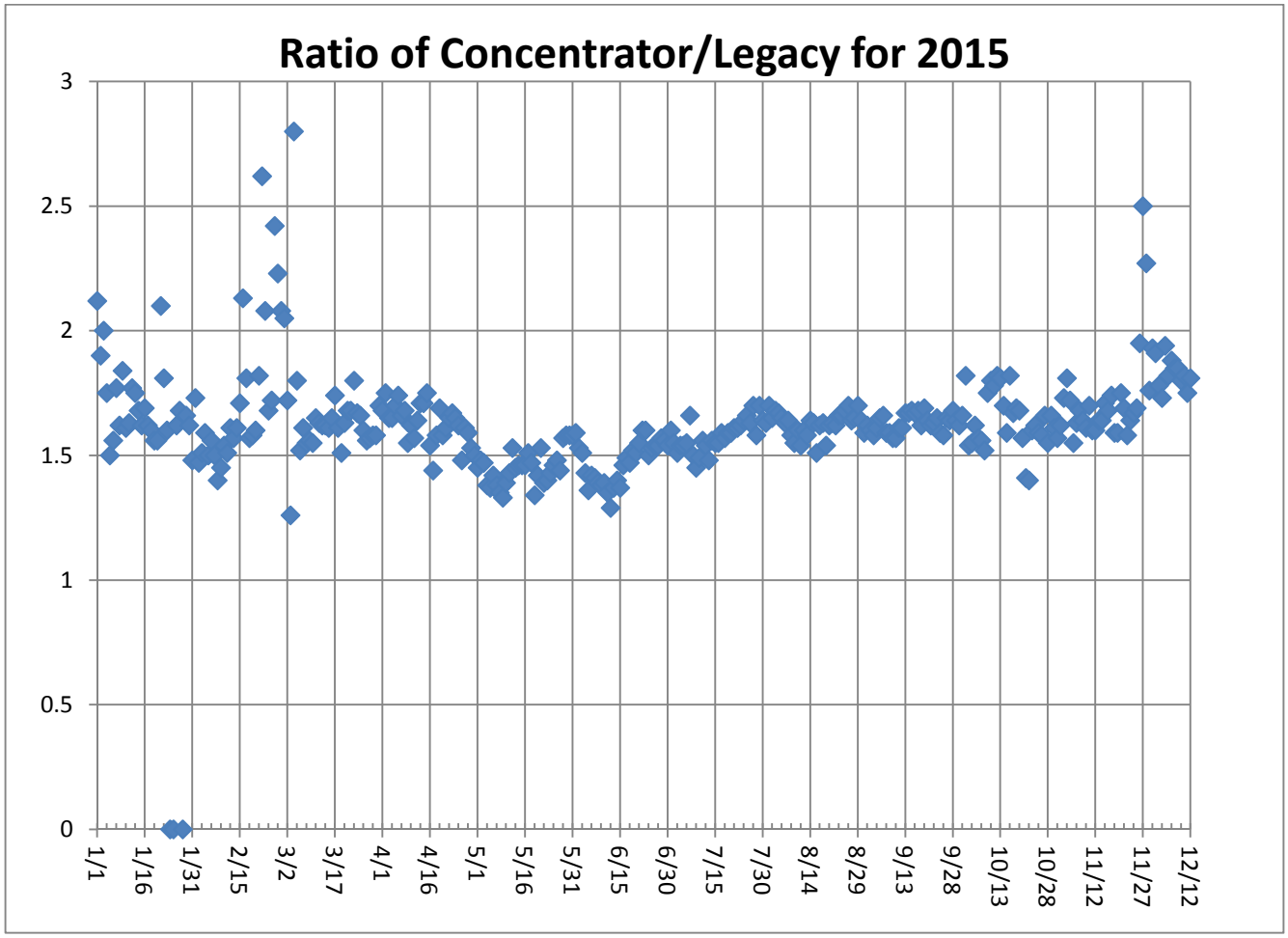


Figure 1. Daily Ratio of Concentrator Reports to Legacy Reports

The ratio becomes more volatile in the cold months as the Blue Mountain repeater has problems with legacy ALERT reporting when the temperature drops.

A. Continuous Operation of Base Receiver/Decoder

In general the ns5 base stations were in continuous operation for the entire month. They both collected data for a total of 720 hours which is the entire month. There were several small periods…..on the order of several minutes when data was not received on either base station. This could just be "quite" periods where little data traffic is present especially during the winter when less than half the network is in operation.

The following outages were observed only on the Greenhouse server which was down for three (3) minutes on November 1st from 23:53 through 23:55 and for 14 minutes on November 2nd from 00:20 through 00:33 and for two (2) minutes on November 6th from 06:04 through 06:07 and for one (1) minute on November 14th at 02:17 and for one (1) minute on November 26th at 19:10 and for one (1) minute on November 30th at 12:00. The Greenhouse server was down for 22 minutes during the month of November. These data outages were not present in the Diamond Hill collection logs.

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	Comments
10029	Plum Creek at Sedalia	Poor timer reporting
10027	West Creek Hayman	Poor timer and event reporting
10026	Trumbull Hayman	Poor timer and event reporting
4870	SBC @ SB Road	Poor timer and event reporting
4850	Porphory Mtn	Poor timer and event reporting
1430	Unknown ID	
1382	Unknown ID	Possibly coming from Ferril Lake

C. Performance of New A2 Sites

This section of the report will look at specific reporting characteristics of the new A2 sites by analyzing their APDUID (Application PDU Identifier). The APDUID is a cyclical, incrementing counter from 0 to 6. Tracking skipped values and restarts of the application control byte counter provides useful insight into site performance and general network health. The performance of the cyclical counter is quantified for each A2 self-reporting site and repeater path (Table 4).

Table 4. APDUID Performance of A2 Sites by Source Address

Description	ID	W. Creek (6001)	Smoky Hill (6502)	Blue Mt. (6503)	Lee Hill (6505)	Gold Hill (6506)
Carr Street (10012)	100		--	--	--	--
Murphy Creek (10019)	870		0.912	0.906	0.894	0.890
Maple Grove (10013)	1000		1.000	0.457	0.867	0.917
Lena @ Nolte Pond (10025)	1020		0.900	0.983	0.771	0.974
Diamond Hill (10028)	1420		0.707	0.910	0.430	0.756
Newlin Gulch	3070		--	--	--	--
Heritage Regional Park	3090		--	--	--	--
Lower Left Hand (10018)	4453		--	--	--	--
Magnolia	6602		1.00	1.00	1.00	0.905
Blackstone**	100100		0.131	0.067	0.080	0.144
ETG @ Hampden**	100110		0.143	0.139	0.115	0.143
Upper Sellers	100140	--				
Haystack Road	100150	--				
Sand Cr at Colfax	100160		0.985	0.960	0.955	0.987
James Creek	100177		--	--	--	--
S. St. Vrain at Berry Ridge	100210		--	--	--	--
Arvada/Blunn Reservoir	100227		1.000	1.000	0.822	0.825
Havana Pond	100230		0.983	0.983	0.984	0.983
Westerly Creek Dam	100247		--	--	--	--
Trumbull (Hayman)	100260	0.800	--	--	--	--
West Creek (Hayman)	100270	0.768	--	--	--	--
Plum Creek at Sedalia	100290	0.765	--	--	--	--
Coal Creek at McCaslin	100300		--	--	--	--

**-the APDUID is disabled for these sites…..these are original HSE A2 transmitters and may not support the APDUID

D. ALERT2 Repeater Loading

The ALERT2 architecture utilizes 5 repeaters with a single transmit frequency (170.300 MHz) to Diamond Hill. The repeaters utilize a 20 second frame where each repeater is allocated a slot of specific size and an offset within the frame. The slot allocated to each repeater is sized appropriately to accommodate the total number of existing and future remote sites routed through that repeater. Each repeater is shown along with its designated slot (Table 5). Currently there is no pass-listing for the ALERT2 repeaters. Any remote ALERT2 site can be received by all repeaters and re-broadcast to the base except for West Creek which has an input frequency unique to Douglas County.

Table 5. ALERT2 Repeater Architecture

Repeater	Slot Size (sec)	Slot Offset (sec)	Source Address	ALERT2 Input Frequency (MHz)	ALERT2 Output Frequency (MHz) – received at Diamond Hill
West Creek	2	0	6001	169.425	170.300
Smoky	3	2	6502	169.525	170.300
Blue Mt.	4	5	6503	169.525	170.300
Lee Hill	3	9	6505	169.525	170.300
Gold Hill	3	12	6506	169.525	170.300
Magnolia	5	15	6507		170.300
Frame Size	20				

The following tables summarize the total number of reports received through each repeater (Table 6). This helps to quantify repeater loading for the ALERT2 backbone.

Table 6. ALERT2 Reports Received through Each Repeater (Only A2 Self Reports)

Month	West Creek (6001)	Smoky (6502)	Blue Mt. (6503)	Lee Hill (6505)	Gold Hill (6506)	TOTAL
Jan	0	44,501	44,636	44,783	39,007	172,927
Feb	0	58,543	56,150	61,160	57,764	233,617
Mar	346	73,198	69,604	77,968	65,323	286,439
Apr	595	73,711	69,568	79,215	72,310	295,399
May	5,259	78,694	72,340	86,297	77,174	319,764
June	11,987	72,449	65,742	82,998	69,570	302,746
July	28,595	75,379	71,394	79,026	74,041	328,435
Aug	28,409	92,299	84,057	84,363	87,211	376,339
Sep	26,809	84,143	84,776	84,289	85,123	365,140
Oct	19,775	82,683	83,390	63,475**	84,825	334,148
Nov	6,438	62,615	61,477	50,888	58,004	239,422

**** - The number of reports coming through Lee Hill has declined in October**

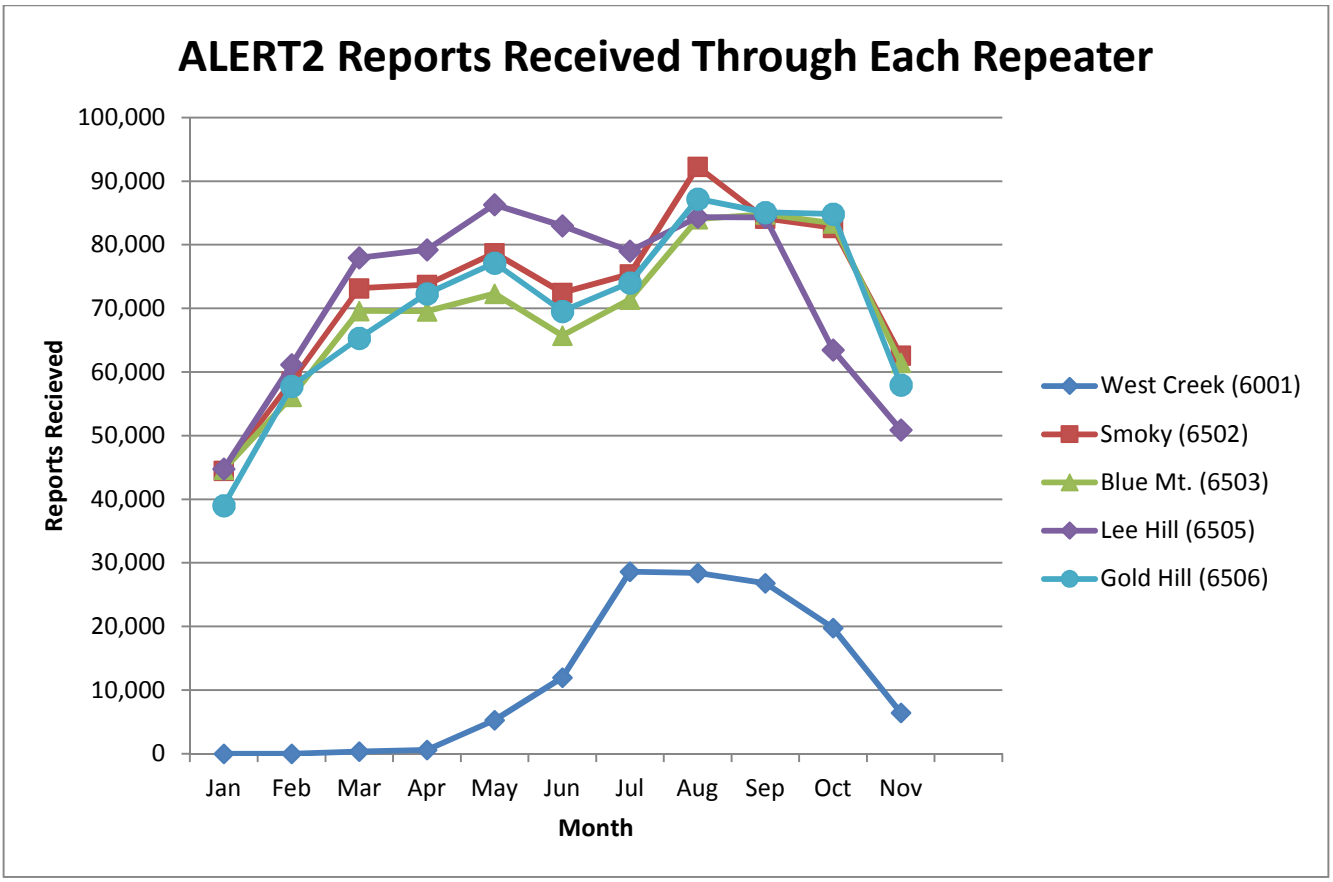


Figure 2. Reports received through each repeater (ALERT2 Only)

The reduction of ALERT2 reports through Lee Hill in October is evident (Figure 2). Although still present the reduction of ALERT2 reports in November is not as prevalent.

The following tables summarize the system-wide latency of ALERT2 self-reports (Table 7 and Table 8).

Table 7. System-Wide Latency of ALERT2 Self-Reports (seconds)

Statistical Parameter	Value	Comments
Mean	67.87	The average time it took a report from the field to reach the base
Minimum	2	The minimum time it took for a report to go from the field to the base
Maximum	382	The maximum time it took for a report to go from the field to the base

Table 8. Summary of ALERT2 System-Wide Latency (seconds)

Statistical Parameter	Feb	Mar*	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	340	35.7	44.04	38.14	34.23	59.75	71.60	70.48	70.61	67.87	
Minimum	5	3	3	3	3	4	3	4	4	2	
Maximum	35,209	3,706	43,089	205	245	1,093	261	264	261	382	
Station with Max Latency			Arvada Blunn (10022)	Sellers Gulch (10015)	Westerly Creek (10024)	Murphy Creek (870)	Magnolia WX (6601)	Magnolia WX (6601)	Magnolia WX (6601)	Magnolia WX (6601)	

E. Rain Sensor Timer Reporting Summary

The following analysis assumes that each legacy rain sensor has a 12-hour timer-reporting interval and each A2 rain sensor has a 1-hour timer-reporting interval. The worst performing rain sensors for the month are summarized (Table 9).

Table 9. Monthly Summary of Sensors with Poor Timer Performance (Sensor ID)

Jan*	Feb*	Mar*	Apr	May	Jun	Jul	Aug	Sep	Oct*	Nov*	Dec*
4470	4470	4470	4850	2330	430	2330	1660	4850	10029	10026	
700	2330	4270	2330	310	2330	2360	430	100140	10027	10027	
2330	4870	2790	430	2360	3010	1570	2330	2850	10026	10029	
4240	3010	4240	5720	430	2360	430	2850	430	10024	4870	
3010	1660	4870	2970	4470	310	2850	1570	2330	4850	4850	
4870	4240	3010	2360	4870	1660	1660	2360	2360	4470	4550	

***- 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 10). 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 10. District-Wide Total Tip/Count Statistical Summary

Statistical Parameter	Value	Comments
Mean	22.08	Only the 1-mm rain sensors were included in the analysis
Median	23	Only the 1-mm rain sensors were included in the analysis
Standard deviation	10.54	Only the 1-mm rain sensors were included in the analysis
Mean plus three standard deviations	53.71	Only the 1-mm rain sensors were included in the analysis
Mean minus two standard deviations	1.92	Only the 1-mm rain sensors were included in the analysis
Minimum total count	2	Elbert (1440)
Maximum total count	50	Marston Lake North (1520)
Sensors showing **NO** rain for the month		--
Sensors greater than 3 SD (over reporting)		None

B. Monthly Average Tip/Count Summary

A monthly summary of the District-wide mean total tip/count is presented (Table 11).

Table 11. 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	29.16	99.73	43.59	50.96	29.26	13.36	8.11	35.45
2015	9.88	24.42	20.78	69.75	143.07	86.93	54.59	29.95	7.16	53.28	22.08		

***- 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 12).

Table 12. Sensors with a Jump of 6 or More in Sequential Count

Sensor Description	Sensor ID	Comment
WX-A2-Trumbull (Hayman)	100260	A2 site not coming in cleanly through West Creek……WET to investigate
SBC@ SB Road	4870	Many large jumps in the count this month

D. Sensor-by-Sensor Incrementing Count Summary

The system-wide reception rate of incrementing, 1-mm tip reports for the month was approximately 93 percent. A total of 1,437 incrementing reports were received and a total of 1,546 reports were expected. The total loss of incrementing reports for the month was approximately 7 percent. Those sensors with the worst event transmission performance are summarized (Table 13).

Table 13. Monthly Summary of Sensors with the Worst Performance

Jan*	Feb*	Mar*	Apr	May	Jun	Jul	Aug	Sep	Oct*	Nov*	Dec*
4470	2330	100150	100150	310	430	2790	2330	2240	4470	10026	
700	4470	4470	4240	1620	4470	430	430	2970	10027	10027	
4750	700	2340	430	2330	2330	2360	4330	1440	10026	5940	
4330	2320	100140	100140	430	2970	4870	4270	1040	4510	4870	
2790	4330	1520	2330	2230	2230	2850	4470	1710	4790	4240	
4870	4870	1100	1620	4470	2360	2330	1660	4330	2790	4030	

***-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. 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 14).

Table 14. Summary of Unknown IDs

Description	Concentrator	Legacy	A2
Total number of unknown IDs (IDs without a device definition)	235	310	0
Total reports from unknown IDs	600	705	0
Unknown IDs with only a single received report (potential noise)	153	226	0
Total reports from all IDs – RecData Log entire month	400,414	234,612	239,422
Unknown reports as a fraction of total reports	0.15%	0.30%	0%

The total number of reports from unknown sensors is very small relative to the total reports received for the month. Shown below (Table 15) are the total reports received from unknown sensor IDs for each month of the year.

Table 15. Monthly Summary of Total Reports from Unknown IDs (Concentrator)

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	1,832	3,983	268	369	448	470	1,099
2015	542	9,137	1,524	1,007	946	699	1,179	1,860	1,153	1,063	600	

The fraction of reports from unknown sensors relative to the total number of reports is shown below (Table 16).

Table 16. Monthly Percent of Unknown Sensor Reports (Concentrator)

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%	0.34%	0.66%	0.03%	0.03%	0.07%	0.11%	0.26%
2015	0.15%	2.25%	0.34%	0.22%	0.19%	0.14%	0.26%	0.42%	0.29%	0.24%	0.15%	

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 17).

Table 17. Reports Received by Unknown IDs

Concentrator		Legacy ALERT		
Unknown ID	**Reports**	**Unknown ID**	**Reports**	**Comment**
1382	119	1382	109	
1430	32	1430	28	
623	30	623	31	
1495	12	1495	10	
1470	7	1470	8	
3053	7	2	59	
4374	7			

V. Sensors with Invalid Reports

The sensors below (Table 18 and Table 19) have the largest number of invalid decodes as determined by the validation process defined at the District NovaStar5 base station. These invalid reports may indicate poor radio paths (bit flip/contention errors/random decode) or validation criteria that do not match the physical installation at the site.

Table 18. Rain Sensors with the Most Invalid Reports

Sensor ID	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temple Pond at DTC (630)	0	0	0	0	0	0	113	0	0	0	--	
Bear Creek @ Lowell (1530)	5	6	2	1	15	9	0	0	0	1	--	
Pine Cliff Road (2810)	4	5	6	4	2	7	5	5	7	4	4	
Porphory Mtn (4850)	0	0	0	0	0	7	5	2	1	3	--	
East/West Trailhead (3050)	0	0	0	0	0	5	4	1	1	3	1	
Haskins Gulch (2820)	0	0	0	0	64	0	0	0	0	0	--	
Wx-West Creek (3020)	0	0	10	4	13	1	0	2	0	0	--	
Wx-Castle Rock (2750)	0	0	5	2	30	0	0	0	0	0	1	
A2-Newlin Gulch (3070)	0	0	0	6	35	2	0	0	1	134	2	
A2-Highland Heritage Park (3090)	0	0	0	0	0	0	0	0	0	121	--	
CC at Stroh Road (2860)	0	0	0	0	0	0	0	10	0	0	--	
Cannon Mt (4270)	0	0	0	0	0	0	0	8	0	1	--	
A2-Upper Sellers Gulch (10014)	0	0	0	0	0	0	0	0	0	94	--	
A2-Haystack (10015)	0	0	0	0	0	0	0	0	0	79	--	

Table 19. Level Sensors with the Most Invalid Reports

Sensor ID	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Van Bibber @ Hwy 93 (333)	0	0	0	0	0	0	43	5	0	0	1	
Horseshoe Park Drop (713)	0	0	0	0	0	0	198	0	0	1	3	
Louisville Rec Ctr (1103)	0	0	0	0	0	0	94	4	0	0	4	
Pine Cliff Road (2813)	0	0	0	0	0	0	41	17	0	3	1	
Ferril Lake (1383)	666	667	725	720	261	0	0	0	0	307	709	
Kelly Dam (413)	0	0	0	0	61	70	47	42	18	2	--	
A2-Lena @ Nolte Pond (1023)	na	545	745	738	0	0	0	1	0	0	2	
Piney at Liverpool (953)	0	0	228	232	26	0	0	0	0	0	--	
Flying J (853)	0	0	52	60	60	58	61	62	59	62	30	
Sanderson at Xavier (1343)	0	0	31	7	15	26	6	1	0	0	2	
SPR at Henderson (1663)	0	0	0	0	0	0	18	10	5	3	8	
Little Narrows (4473)	33	208	2	8	11	24	7	1	3	1	--	
SPR at Dartmouth (1629)				49	58	3	0	51	96	0	--	
Murphy Creek GC (873)	0	0	0	0	36	1	0	0	0	0	--	
Marston Lake North (1523)	0	0	0	0	20	10	0	4	0	5	3	
Bridge (4423)	0	0	0	0	0	32	3	0	0	0	--	
SBC @ San Souci (4833)	0	0	0	0	0	26	1	1	6	0	--	
Sand Creek Park (1803)	0	0	0	0	0	23	1	0	4	0	1	
Newlin Gulch (3073)	0	0	0	0	0	0	0	34	0	0	--	
A2-Highland Heritage Park (3093)	0	0	0	0	0	0	0	0	0	73	--	
A2-Havana Pond (100237)	0	0	0	0	0	0	0	13	60	0	--	
Lyons Diversion NSV (4563)	0	0	0	0	0	0	0	0	16	1	4	
Red Rocks Park (2373)	0	0	0	0	0	0	0	0	10	1	--	

VI. 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.

There were no rainfall alarms this month.

General System Analysis

Database Name	P:\A207-UDFCD-Data-Analysis\2015\11-2015\Novastar_extract_2015Nov.mdb			
First Date in Database	11/1/15 12:00 AM	**Total Days**	30.0	Summarize
Last Date in Database	11/30/15 11:59 PM	**Total Hours**	720.0	
Total Records Analyzed	400,414			

Records by Group	**Concentrator**	**Percent**	**Legacy**	**Percent**	**ALERT2**	**Percent**
Wind Data	168,060	42%	88,181	38%	113,046	47%
Temperature	66,723	17%	33,568	14%	35,982	15%
Relative Humidity	57,591	14%	33,151	14%	34,915	15%
Barometric Pressure	33,839	8%	19,331	8%	206	0%
Battery Voltage	19,937	5%	10,506	4%	17,866	7%
Water Level	13,639	3%	12,935	6%	14,599	6%
Solar Radiation	10,513	3%	10,212	4%	0	0%
Precipitation	8,695	2%	7,911	3%	9,265	4%
Fuel Temperature	4,938	1%	5,495	2%	0	0%
Fuel Moisture	4,932	1%	5,454	2%	0	0%
Wind Direction	4,380	1%	0	0%	2,796	1%
Soil Moisture	2,830	1%	2,637	1%	0	0%
Repeater Status Report	2,352	1%	2,837	1%	0	0%
ET-Hourly	715	0%	711	0%	0	0%
Unknown	600	0%	705	0%	0	0%
Hayman Battery	243	0%	0	0%	0	0%
12Hr Status Report	198	0%	200	0%	1,980	1%
Handar 585 ALARM Status	60	0%	53	0%	0	0%
Repeater Pass List	57	0%	527	0%	0	0%
Not Used	50	0%	47	0%	0	0%
ET-Daily	30	0%	29	0%	0	0%
GPS Lock	28	0%	114	0%	2,465	1%
Solar Power	3	0%	8	0%	0	0%
Dew Point Temperature	1	0%	0	0%	6,302	3%
Total	**400,414**	**100%**	**234,612**	**100%**	**239,422**	**100%**

Traffic Loading Summary	**Concentrator**		**Legacy**		**ALERT2**	
Alert Reports	400,414		234,612		239,422	
Average Daily Traffic	13,347		7,820		7,981	
Average Hourly Traffic	556		326		333	
Median Hourly Traffic	550	hour beginning	331	hour beginning	380	hour beginning
Peak Hourly Traffic	1,174	Nov 1, 1:00 AM	740	Nov 1, 1:00 AM	860	Nov 1, 1:00 AM
2nd Max	827	Nov 11, 10:00 AM	597	Nov 11, 11:00 AM	478	Nov 8, 11:00 AM
3rd Max	821	Nov 18, 12:00 PM	555	Nov 18, 12:00 PM	477	Nov 18, 12:00 PM
4th Max	816	Nov 11, 11:00 AM	550	Nov 4, 10:00 PM	475	Nov 5, 8:00 AM
5th Max	803	Nov 17, 12:00 AM	550	Nov 11, 12:00 PM	469	Nov 5, 11:00 AM

Rain Timer Performance

Analyze Rain Sensors

Description	Rcv	Timer	Exp	Performance
Wx-A2-Trumbull (Hayman) - Precip	96	4:47	720	13%
Wx-A2-WestCreek (Hayman) - Precip	104	3:15	720	14%
Wx-A2-PlumCr at Sedalia - Precip	174		720	24%
SBC @ SB Road	42	14:28	60	70%
Porphory Mtn	42	15:20	60	70%
Boulder Jail	42	15:16	60	70%
Log Jumper	43	14:55	60	72%
Cannon Mountain	48	14:39	60	80%
Winiger Ridge	49	12:18	60	82%
Hansen Rain	49	12:53	60	82%
Lakeshore	49	14:02	60	82%
Wx-Louisville Lake	51	12:00	60	85%
Fling's	51	12:33	60	85%
Gold Lake	51	12:14	60	85%
Cresent	51	11:57	60	85%
Wx-Ward C-1	52	12:00	60	87%
Wx-W. Cherry Creek	52	13:16	60	87%
Doudy Draw	52	11:57	60	87%
Shanahan Ridge	52	14:00	60	87%
SBC @ San Souci	53	13:14	60	88%
St. Antons	53	13:25	60	88%
Apple Valley	53	13:16	60	88%
Riverside	53	13:08	60	88%
Sunset	53	11:58	60	88%
Twin Sisters	53	12:14	60	88%
Wx-Blue Mountain	54	12:16	60	90%
SBC@S Boulder Ditch	54	11:57	60	90%
Justice Center	54	12:28	60	90%
Gold Hill	54	12:13	60	90%
Swiss Peaks	54	13:04	60	90%
Magnolia	54	12:59	60	90%
Walker Ranch	54	12:42	60	90%
Red Garden	54	11:44	60	90%
Wx-Elbert	55	12:41	60	92%
WX-Bingham Lake Park	55	12:45	60	92%
Fairview Peak	55	13:15	60	92%
Conifer Hill	55	12:41	60	92%
Geer Canyon	55	13:12	60	92%
Rio Grande	55	12:27	60	92%
Wx-Sugarloaf	56	12:44	60	93%
Johnny Park	56	11:58	60	93%
Red Hill	56	12:26	60	93%
Pine Brook	56	12:57	60	93%
Logan Mill	56	12:42	60	93%
Bear Peak	56	12:32	60	93%
Martin Gulch	56	12:28	60	93%
Wx-Marston Lake North	57	12:31	60	95%
Wx-Highlands Ranch WTP	57	12:14	60	95%
Wx-Button Rock	57	12:29	60	95%
Pinewood Springs	57	12:13	60	95%
Big Elk Park	57	12:11	60	95%
Taylor Mountain	57	12:13	60	95%
Slaughterhouse	57	11:57	60	95%
Wx-Cal-Wood Ranch	58	12:00	60	97%

Wx-Brighton Ditch	58	12:00	60	97%
Whispering Pines	58	12:12	60	97%
Eagle Ridge	58	12:14	60	97%
Lee Hill Rain 2012	58	12:13	60	97%
Lazy Acres	58	12:14	60	97%
Filter Plant	58	11:59	60	97%
Wx-West Creek WX	59	12:00	60	98%
Wx-Urban Farm	59	11:45	60	98%
Wx-Tomah Rd-DougCnty	59	12:00	60	98%
Wx-Spring Valley Rd-DougCnty	59	12:00	60	98%
Wx-Salisbury Park	59	12:00	60	98%
Wx-Hiwan G.C.	59	12:00	60	98%
WX-EPC at Hwy 105	59	12:00	60	98%
Wx-Castle Rock	59	12:00	60	98%
Wx-Aurora Town Hall	59	12:00	60	98%
Wx-Aurora Reservoir	59	12:00	60	98%
Golden Age	59	11:57	60	98%
Sunshine	59	11:58	60	98%
Betasso	59	11:57	60	98%
Wx-Quincy Reservoir	60	11:56	60	100%
Wx-Brighton	60	12:13	60	100%
A2-Magnolia WX-Precip	69	10:22	69	100%
A2-Highland Heritage Park	56	12:26	60	93%
A2-Newlin Gulch Precip	56	12:26	60	93%
Dakan Rd	56	12:39	60	93%
Red Rocks Park	7	11:56	60	12%
Morrison	32	18:29	60	53%
Choke Cherry Resvr	46	13:24	60	77%
Sand Creek Park	48	11:45	60	80%
Cherry Cr @ Steele	55	12:28	60	92%
Shop Creek	5	16:00	60	8%
Cherry Cr @ Champa	55	12:42	60	92%
SPR at Henderson	39	16:00	60	65%
SPR at Union Ave.	59	12:11	60	98%
Slaughterhouse Glch	20	11:58	60	33%
Englewood Dam	29	12:25	60	48%
Lakewood CC	31	12:21	60	52%
Bear Creek @ Lowell	19	12:42	60	32%
Powers Park	17	14:30	60	28%
Third Creek at DIA	56	12:28	60	93%
A2-Wx-Diamond Hill	59	12:00	60	98%
Upper Sloan Det.	28	11:57	60	47%
West Metro FS13	56	12:13	60	93%
Chatfield COE	48	12:55	60	80%
Sanderson at Xavier	19	12:37	60	32%
SPR at 3rd Ave	20	11:58	60	33%
Broomfield 3207	36	11:58	60	60%
Gunbarrel	36	11:58	60	60%
Louisville Rec Ctr	35	11:59	60	58%
Heritage Square	6	11:57	60	10%
Jeffco Fairgrounds	43	12:18	60	72%
Lena @ U.S. Hwy 6	41	12:18	60	68%
NREL/S. Table Mtn.	40	13:26	60	67%
Denver West	56	12:43	60	93%
A2-Maple Grove Resv.	719		60	
Pump Sta 3	59	12:00	60	98%
Piney at Liverpool	35	11:32	60	58%

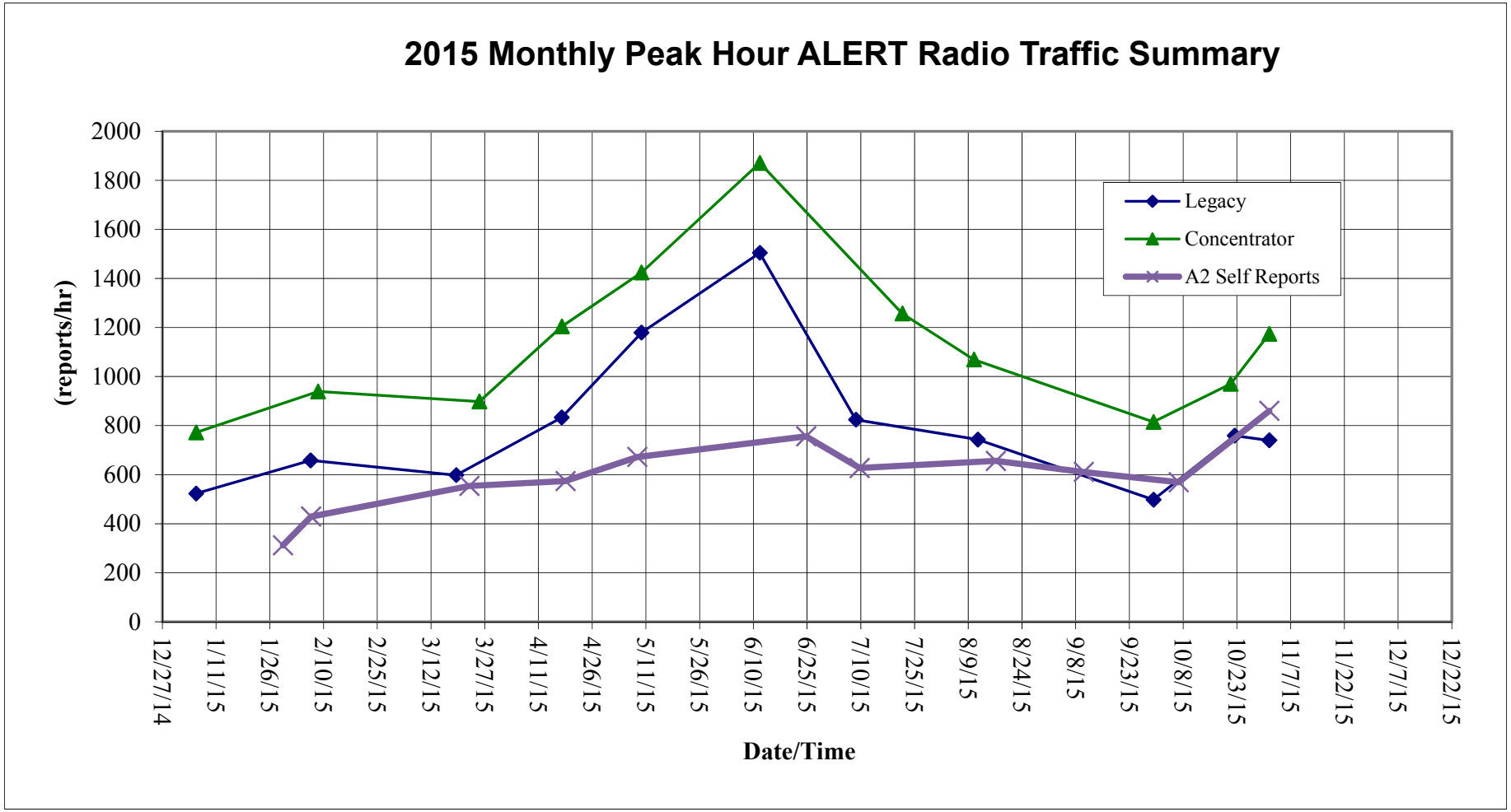
Aurora Regional Pond	28	15:12	60	47%
A2-Murphy Creek GC	419		60	
Flying J	29	12:00	60	48%
Granby Ditch @ 6th	30	11:57	60	50%
Sable Ditch @ 18th	33	11:30	60	55%
Mission Viejo Park	10	11:57	60	17%
Confluence Pond	12	11:58	60	20%
Horseshoe Park Drop	33	11:57	60	55%
Toll Gate @ 6th	59	12:00	60	98%
Iliff Pond	8	11:59	60	13%
Goldsmith @ Eastman	10	11:57	60	17%
Temple Pond at DTC	10	11:56	60	17%
Quincy/Highline	28	12:25	60	47%
Harvard @ Jackson	28	12:56	60	47%
Harvard Gulch Park	30	11:58	60	50%
Van Bibber @ Hwy 93	57	12:28	60	95%
Guy Hill Ranch	39	12:20	60	65%
Van Bibber Park	6	11:56	60	10%
Upper Leyden	58	12:16	60	97%
Leyden Confluence	56	11:57	60	93%
Leyden Reservoir	55	12:56	60	92%
Nott Creek	44	11:57	60	73%
West Woods	5	14:56	60	8%
Ralston Reservoir	54	12:58	60	90%
A2-Sellers Gulch at Haystack Precip	56	12:26	60	93%
A2-Upper Sellers Gulch Precip	56	12:26	60	93%
A2-ETG @ Hampden Precip	35	12:00	60	58%
A2-Blackstone Precip	34	12:00	60	57%
A2-Havana Pond Precip	564		60	
A2-Sand Creek at Colfax Precip	374		60	

Rain Event Performance

	Reports Received	Reports Received	1,437		Analyze Rain Sensors			0	<<show stations with zero rain (1-yes, 0-no)								
	Systemwide Avg	Total Tips	1,546														
	92.95%	Data Loss	7.05%														
Description	**Sensor**	**Performance**	**1-tips**	**2-tips**	**3-tips**	**4-tips**	**5-tips**	**6-tips**	**>6-tips**	**Rcv**	**Exp**	**Miss**	**Hold**	**Bucket**			
Wx-A2-Trumbull (Hayman)	100260	24%	2	1	0	2	0	1	1	6	25	19	0	0.03937			
Wx-A2-WestCreek (Hayma	100270	63%	3	1	1	0	0	0	0	5	8	3	0	0.03937	Mean	22.08571	
Log Jumper	5940	64%	6	0	0	0	1	0	0	7	11	4	0	0.03937	Median	23	
SBC @ SB Road	4870	64%	19	5	1	0	0	0	1	25	39	14	0	0.03937	St. Dev	10.54011	
Sunset	4240	81%	12	0	0	1	0	0	0	13	16	3	0	0.03937	Mean plus 3 SD	53.70606	
Red Garden	4030	83%	25	2	2	0	0	0	0	29	35	6	0	0.03937	Min (ID 1440)	2	
Fling's	4220	84%	14	1	1	0	0	0	0	16	19	3	0	0.03937	Max (ID 1520)	50	
Cresent	4010	85%	26	1	0	0	1	0	0	28	33	5	0	0.03937			
Wx-Button Rock	4790	86%	15	3	0	0	0	0	0	18	21	3	0	0.03937			
Wx-Cal-Wood Ranch	4770	86%	17	1	1	0	0	0	0	19	22	3	0	0.03937			
Boulder Jail	4550	88%	26	2	1	0	0	0	0	29	33	4	0	0.03937			
Wx-Brighton Ditch	1570	88%	22	0	0	1	0	0	0	23	26	3	0	0.03937			
Hansen Rain	4330	88%	20	3	0	0	0	0	0	23	26	3	0	0.03937			
Wx-W. Cherry Creek	2790	89%	7	1	0	0	0	0	0	8	9	1	0	0.03937			
Wx-Urban Farm	1460	89%	29	4	0	0	0	0	0	33	37	4	0	0.03937			
Winiger Ridge	4530	89%	16	0	1	0	0	0	0	17	19	2	0	0.03937			
Eagle Ridge	4520	92%	22	2	0	0	0	0	0	24	26	2	0	0.03937			
Martin Gulch	4040	92%	33	3	0	0	0	0	0	36	39	3	0	0.03937			
Apple Valley	4490	93%	24	0	1	0	0	0	0	25	27	2	0	0.03937			
Riverside	4340	93%	25	0	1	0	0	0	0	26	28	2	0	0.03937			
SBC @ San Souci	4830	93%	25	2	0	0	0	0	0	27	29	2	0	0.03937			
Wx-Blue Mountain	140	93%	13	1	0	0	0	0	0	14	15	1	0	0.03937			
Wx-Salisbury Park	2730	94%	14	1	0	0	0	0	0	15	16	1	0	0.03937			
SBC@S Boulder Ditch	4840	94%	30	2	0	0	0	0	0	32	34	2	0	0.03937			
Lakeshore	4060	95%	18	1	0	0	0	0	0	19	20	1	0	0.03937			
Shanahan Ridge	4810	96%	21	1	0	0	0	0	0	22	23	1	0	0.03937			
Lee Hill Rain 2012	4320	96%	21	1	0	0	0	0	0	22	23	1	0	0.03937			
Slaughterhouse	4190	96%	21	1	0	0	0	0	0	22	23	1	0	0.03937			
Wx-Highlands Ranch WTP	2710	96%	22	1	0	0	0	0	0	23	24	1	0	0.03937			
Wx-Brighton	1920	96%	45	2	0	0	0	0	0	47	49	2	0	0.03937			
Johnny Park	4310	96%	23	1	0	0	0	0	0	24	25	1	0	0.03937			
Lazy Acres	4200	96%	23	1	0	0	0	0	0	24	25	1	0	0.03937			
Doudy Draw	4820	96%	25	1	0	0	0	0	0	26	27	1	0	0.03937			
Red Hill	4290	96%	25	1	0	0	0	0	0	26	27	1	0	0.03937			
Justice Center	4360	96%	26	1	0	0	0	0	0	27	28	1	0	0.03937			
Wx-Louisville Lake	4750	97%	35	1	0	0	0	0	0	36	37	1	0	0.03937			
Wx-Marston Lake North	1520	98%	48	1	0	0	0	0	0	49	50	1	0	0.03937			
Wx-West Creek WX	3020	100%	13	0	0	0	0	0	0	13	13	0	0	0.03937			
Wx-Ward C-1	4710	100%	13	0	0	0	0	0	0	13	13	0	0	0.03937			
Wx-Tomah Rd-DougCnty	2990	100%	25	0	0	0	0	0	0	25	25	0	0	0.03937			
Wx-Sugarloaf	4730	100%	15	0	0	0	0	0	0	15	15	0	0	0.03937			
Wx-Spring Valley Rd-Doug	2930	100%	6	0	0	0	0	0	0	6	6	0	0	0.03937			
Wx-Quincy Reservoir	750	100%	29	0	0	0	0	0	0	29	29	0	0	0.03937			
Wx-Hiwan G.C.	2210	100%	16	0	0	0	0	0	0	16	16	0	1	0.03937			
Wx-Elbert	1440	100%	2	0	0	0	0	0	0	2	2	0	0	0.03937			
Wx-Castle Rock	2750	100%	10	0	0	0	0	0	0	10	10	0	0	0.03937			
WX-Bingham Lake Park	3030	100%	19	0	0	0	0	0	0	19	19	0	0	0.03937			
Wx-Aurora Town Hall	920	100%	28	0	0	0	0	0	0	28	28	0	1	0.03937			
Wx-Aurora Reservoir	900	100%	3	0	0	0	0	0	0	3	3	0	0	0.03937			
Whispering Pines	4880	100%	22	0	0	0	0	0	0	22	22	0	0	0.03937			

St. Antons	4570	100%	12	0	0	0	0	0	0	12	12	0	0	0.03937		
Pinewood Springs	4510	100%	24	0	0	0	0	0	0	24	24	0	0	0.03937		
Conifer Hill	4350	100%	15	0	0	0	0	0	0	15	15	0	0	0.03937		
Big Elk Park	4300	100%	6	0	0	0	0	0	0	6	6	0	0	0.03937		
Cannon Mountain	4270	100%	8	0	0	0	0	0	0	8	8	0	0	0.03937		
Taylor Mountain	4260	100%	15	0	0	0	0	0	0	15	15	0	0	0.03937		
Geer Canyon	4250	100%	29	0	0	0	0	0	0	29	29	0	0	0.03937		
Golden Age	4230	100%	9	0	0	0	0	0	0	9	9	0	0	0.03937		
Gold Lake	4180	100%	9	0	0	0	0	0	0	9	9	0	0	0.03937		
Pine Brook	4170	100%	17	0	0	0	0	0	0	17	17	0	0	0.03937		
Sunshine	4160	100%	21	0	0	0	0	0	0	21	21	0	0	0.03937		
Gold Hill	4150	100%	25	0	0	0	0	0	0	25	25	0	0	0.03937		
Logan Mill	4140	100%	26	0	0	0	0	0	0	26	26	0	0	0.03937		
Betasso	4110	100%	45	0	0	0	0	0	0	45	45	0	0	0.03937		
Filter Plant	4100	100%	35	0	0	0	0	0	0	35	35	0	0	0.03937		
Magnolia	4090	100%	15	0	0	0	0	0	0	15	15	0	0	0.03937		
Twin Sisters	4080	100%	14	0	0	0	0	0	0	14	14	0	0	0.03937		
Bear Peak	4070	100%	24	0	0	0	0	0	0	24	24	0	0	0.03937		
Walker Ranch	4050	100%	12	0	0	0	0	0	0	12	12	0	0	0.03937		
Rio Grande	4020	100%	10	0	0	0	0	0	0	10	10	0	0	0.03937		
	Total Tips		1370	50	10	4	2	1	2	1437	1546	109	2			
Red Rocks Park	2370	100%	2	0	0	0	0	0	0	2	2	0	0	0.03937		
Morrison	2330	78%	22	6	1	0	0	0	0	29	37	8	1	0.03937		
Choke Cherry Resvr	2320	92%	21	2	0	0	0	0	0	23	25	2	0	0.03937		
Cherry Cr @ Steele	1720	96%	42	2	0	0	0	0	0	44	46	2	0	0.03937		
Shop Creek	1710	100%	13	0	0	0	0	0	0	13	13	0	1	0.03937		
Cherry Cr @ Champa	1700	89%	29	4	0	0	0	0	0	33	37	4	0	0.03937		
SPR at Henderson	1660	91%	29	1	1	0	0	0	0	31	34	3	0	0.03937		
SPR at Union Ave.	1640	97%	37	1	0	0	0	0	0	38	39	1	0	0.03937		
Slaughterhouse Glch	1620	94%	16	1	0	0	0	0	0	17	18	1	0	0.03937		
Englewood Dam	1600	100%	15	0	0	0	0	0	0	15	15	0	0	0.03937		
Lakewood CC	1550	86%	27	3	1	0	0	0	0	31	36	5	0	0.03937		
Bear Creek @ Lowell	1530	85%	18	4	0	0	0	0	0	22	26	4	0	0.03937		
Powers Park	1500	93%	24	0	1	0	0	0	0	25	27	2	0	0.03937		
Third Creek at DIA	1480	90%	40	3	1	0	0	0	0	44	49	5	0	0.03937		
A2-Wx-Diamond Hill	1420	96%	51	2	0	0	0	0	0	53	55	2	0	0.03937		
Upper Sloan Det.	1400	87%	23	4	0	0	0	0	0	27	31	4	0	0.03937		
West Metro FS13	1370	97%	29	1	0	0	0	0	0	30	31	1	0	0.03937		
Chatfield COE	1350	91%	30	1	1	0	0	0	0	32	35	3	0	0.03937		
Sanderson at Xavier	1340	100%	2	0	0	0	0	0	0	2	2	0	0	0.03937		
SPR at 3rd Ave	1320	87%	23	4	0	0	0	0	0	27	31	4	0	0.03937		
Broomfield 3207	1200	91%	35	4	0	0	0	0	0	39	43	4	0	0.03937		
Gunbarrel	1110	100%	26	0	0	0	0	0	0	26	26	0	0	0.03937		
Louisville Rec Ctr	1100	100%	34	0	0	0	0	0	0	34	34	0	0	0.03937		
Jeffco Fairgrounds	1050	94%	28	2	0	0	0	0	0	30	32	2	0	0.03937		
Lena @ U.S. Hwy 6	1040	97%	36	1	0	0	0	0	0	37	38	1	0	0.03937		
NREL/S. Table Mtn.	1030	97%	28	1	0	0	0	0	0	29	30	1	0	0.03937		
Denver West	1010	98%	44	1	0	0	0	0	0	45	46	1	0	0.03937		
A2-Maple Grove Resv.	1000	98%	45	1	0	0	0	0	0	46	47	1	0	0.03937		
Pump Sta 3	970	88%	12	2	0	0	0	0	0	14	16	2	0	0.03937		
Piney at Liverpool	950	96%	24	1	0	0	0	0	0	25	26	1	0	0.03937		
Aurora Regional Pond	940	92%	21	2	0	0	0	0	0	23	25	2	0	0.03937		
A2-Murphy Creek GC	870	96%	26	1	0	0	0	0	1	27	28	1	1	0.03937		

Flying J	850	96%	23	1	0	0	0	0	0	24	25	1	0	0.03937		
Granby Ditch @ 6th	810	86%	29	2	0	1	0	0	0	32	37	5	0	0.03937		
Sable Ditch @ 18th	800	100%	34	0	0	0	0	0	0	34	34	0	0	0.03937		
Mission Viejo Park	760	100%	12	0	0	0	0	0	0	12	12	0	0	0.03937		
Confluence Pond	720	100%	15	0	0	0	0	0	0	15	15	0	0	0.03937		
Horseshoe Park Drop	710	94%	28	2	0	0	0	0	0	30	32	2	0	0.03937		
Toll Gate @ 6th	700	100%	39	0	0	0	0	0	0	39	39	0	0	0.03937		
Iliff Pond	650	100%	12	0	0	0	0	0	0	12	12	0	0	0.03937		
Goldsmith @ Eastman	640	100%	11	0	0	0	0	0	0	11	11	0	0	0.03937		
Temple Pond at DTC	630	100%	14	0	0	0	0	0	0	14	14	0	0	0.03937		
Quincy/Highline	620	100%	23	0	0	0	0	0	0	23	23	0	0	0.03937		
Harvard @ Jackson	610	93%	24	0	1	0	0	0	0	25	27	2	0	0.03937		
Harvard Gulch Park	600	92%	21	0	1	0	0	0	0	22	24	2	0	0.03937		
Van Bibber @ Hwy 93	330	97%	29	1	0	0	0	0	0	30	31	1	0	0.03937		
Guy Hill Ranch	310	94%	15	1	0	0	0	0	0	16	17	1	0	0.03937		
Van Bibber Park	300	100%	1	0	0	0	0	0	0	1	1	0	0	0.03937		
Upper Leyden	220	98%	39	1	0	0	0	0	0	40	41	1	0	0.03937		
Leyden Confluence	210	88%	37	4	1	0	0	0	0	42	48	6	0	0.03937		
Leyden Reservoir	200	100%	18	0	0	0	0	0	0	18	18	0	0	0.03937		
Nott Creek	150	96%	24	1	0	0	0	0	0	25	26	1	0	0.03937		
Ralston Reservoir	110	92%	20	2	0	0	0	0	0	22	24	2	0	0.03937		
A2-Havana Pond Precip	100230	100%	25	0	0	0	0	0	0	25	25	0	0	0.03937		
A2-Sand Creek at Colfax P	100160	100%	24	0	0	0	0	0	0	24	24	0	0	0.03937		
A2-ETG @ Hampden Preci	100110	100%	29	0	0	0	0	0	0	29	29	0	0	0.03937		
A2-Blackstone Precip	100100	100%	10	0	0	0	0	0	0	10	10	0	0	0.03937		
A2-Magnolia WX-Precip	6601	100%	34	0	0	0	0	0	0	34	34	0	0	0.01		
Fairview Peak	4860	97%	32	1	0	0	0	0	0	33	34	1	0	0.01		
Porphory Mtn	4850	74%	19	3	0	0	0	1	0	23	31	8	0	0.01		
WX-EPC at Hwy 105	3010	93%	60	5	0	0	0	0	0	65	70	5	0	0.01		


2015 Monthly Peak Hour ALERT Radio Traffic Summary
(reports/hr)
2000
1800
1600
1400
1200
1000
800
600
400
200
0
Legacy
Concentrator
A2 Self Reports
12/27/14
1/11/15
1/26/15
2/10/15
2/25/15
3/12/15
3/27/15
4/11/15
4/26/15
5/11/15
5/26/15
6/10/15
6/25/15
7/10/15
7/25/15
8/9/15
8/24/15
9/8/15
9/23/15
10/8/15
10/23/15
11/7/15
11/22/15
12/7/15
12/22/15
Date/Time