



TO: Ed Houle  
R&T Enterprises LLC  
14160 Gleneagle Drive  
Colorado Springs, Colorado 80921

CC: Ryann Farr  
MONSON, CUMMINS & SHOHET, LLC  
13511 Northgate Estates Dr., Ste. 250  
Colorado Springs, Colorado 80921

RE: Denver Basin Groundwater Assessment

Date: June 12, 2018

Water Resources Report has not addressed all criteria for review pursuant to Section 8.4.7 of the revised Land Development Code. Please include additional information

The following presents the results of the groundwater evaluation for the 146.84 – acre undeveloped property having El Paso County schedule number 6119000003 and the legal description of:

S2N2, EX PT TO HIGBY RD CONV BY REC#205092691 W/MR SEC 19-11-66 (Property).

The purpose of this groundwater assessment is to determine the amount of Denver Basin groundwater underlying the Property and evaluate the stream depletions for proposed pumping of the Dawson aquifer to support an augmentation plan and application for water rights.

**Proposed Use and Existing and Proposed Wells**

The property will be used in a proposed development of up to 50 homes. Based on 0.25 AF/Yr in home use and 1400 Sqft of lawn and garden (0.05 AF/yr per 1000 SQ FT) each home will be allocated 0.32AF/Yr. Water will be used for in home use and irrigation of lawn and gardens.

There are two existing domestic exempt wells on the Property having permit numbers 267286 and 2757 issued for the Dawson aquifer. Permit 2757 is for a 1959 well completed to 120 feet and is likely not in use. This well may need to be located and properly abandoned. The well associated with permit 267286 will be re permitted under the water rights decree and replacement plan upon adjudication of the water rights.

Well Permit# 260946 is not addressed.

All water will be used on the overlying land and wastewater will be treated with an Individual non-evaporative septic system.

Irrigation use is not listed in Water Summary Report

## Methodology

The Denver Basin atlas maps, geophysical data, and assessments associated with previously decreed water rights were used to verify the State's assessment tool (SB5) which generates the physical parameters of the groundwater aquifers. Based on the Denver Basin Dawson sand thickness map cooperated with the geophysical Log from 43217-F and interpretation of other geophysical logs, the SB5 results for the Dawson was modified from 324 feet of sand to 380 feet of sand. The State's approved groundwater model (AUG3) was used to evaluate the amount of depletion that occurs to the hydraulically connected stream system(s).

## Results

### 1. Aquifer Assessment.

The table below represents the total estimated amount of water that is available in each aquifer under the Property.

Groundwater Quantification								
Acres								
Elevation 7250			146.84			S2N2 Sec 19 T11S R66W		
Denver Basin Aquifer	Elevation (ft amsl)		Net Sand (ft)	Depth (feet)		Total (AF)	100 Year (AF)	300 Year (AF)
	Bottom	Top		Bottom	Top			
Dawson (NNT)	6550	7250	380	700	0	11160	111.6	37.2
Denver (NNT)	5845	6540	510	1405	710	12731	127.3	-
Arapahoe (NNT)	5340	5790	266	1910	1460	6640	66.4	-
Laramie Fox Hills (NT)	4570	4855	192	2950	2395	4229	42.3	-

The Dawson, Denver and Arapahoe aquifers are non-tributary and pumping from these aquifers will require an augmentation plan. The Laramie Fox hills aquifer is non-tributary and all groundwater from this aquifer minus 2 percent may be extracted at a rate not to exceed a 100-year rate of depletion. As this property is a proposed development in El Paso County, a 300-year pumping duration was evaluated and is supported by the stream depletion analysis (below).

### 3. Stream Depletions.

Actual stream depletions resulting from pumping the Dawson aquifer will need to be augmented during the pumping period. In addition, water will need to be reserved for replacement of post-pumping depletions.

Water Information Summary identifies that you are only withdrawing from the Dawson Aquifer. Therefore, all analyses should be based only on that aquifer.

### 4. Depletion Analysis.

A depletion analysis for the not non-tributary Dawson aquifer was accomplished using the state's AUG3 groundwater model. Depletion occurs to both the South Platte and Arkansas river systems. The maximum total depletion to the Arkansas River system is 2.8 AF and occurs in the 300<sup>th</sup> year and to South Platte River system, 1.9 AF and occurs in the 378<sup>th</sup> year.

Depletions that equal or exceed one tenth of one percent in one 100 years occur Monument (1.4 AF), West Cherry (0.32 AF), East Cherry (.13 AF), Cherry (.005 AF), Plum W (0.002 AF), E Plum E (0.005 AF), Kiowa (.002 AF), Kettle (0.025 AF) and Sand (0.004 AF) creeks.

The resulting total stream depletion from pumping 16.23 AF per year for 300 years was calculated to result in a total depletion of 1.88 AF/yr in the 100<sup>th</sup> year reflecting 11.6% of actual pumping and the maximum of 4.47.2 AF/Yr at the 300<sup>th</sup> year of pumping after which the depletion rate declines. Septic return flows based on an in home use of 0.25 AF/Yr with a presumptive 10% consumption using 50 homes results in 0.23 AF/yr per year per home or 11.25 AF/Yr returning to the stream system exceeding maximum depletions. Return flows will accrue to Monument Creek of the Arkansas River drainage system.

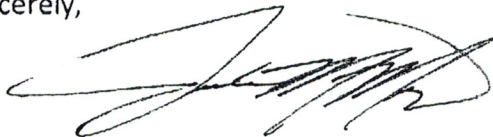
Return values should be based on 48 dwellings.

#### 5. Post Pumping Reserved Water

The Laramie Fox Hills is the only non-tributary aquifer underlying the Property having a total of 4229 AF of water. After retaining 2 % to be relinquished per state statute, a total of 4114.4 AF is available for post-pumping depletions. Based on the proposed pumping of 16.23 AF for 300 years, the total amount of return flow replaced is 1,756 AF. The minimum amount to be reserved is 4113 Af ( $300 * 16.23 AF - 1756 AF$ ). All of the Laramie Fox Hills aquifer will be reserved to replace Post-pumping depletions.

The above results may vary slightly based on the findings of the State engineers.

Sincerely,



Julia M. Murphy, MS PG  
Professional Geologist/Hydrogeologist



**Summary of Total Depletion 16.23 AF/Yr for 300 Yrs  
Dawson Aquifer - R&T Enterprises**

Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)	Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)	Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)	Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)
1	0.31	0.050	226	22.26	3.612	451	20.46	3.320	676	14.90	2.418
2	0.58	0.094	227	22.33	3.624	452	20.43	3.315	677	14.87	2.414
3	0.81	0.132	228	22.40	3.636	453	20.39	3.310	678	14.86	2.411
4	1.02	0.165	229	22.48	3.648	454	20.36	3.305	679	14.83	2.407
5	1.21	0.196	230	22.56	3.661	455	20.33	3.300	680	14.81	2.404
6	1.38	0.224	231	22.63	3.673	456	20.30	3.295	681	14.79	2.401
7	1.54	0.249	232	22.71	3.685	457	20.27	3.290	682	14.77	2.398
8	1.69	0.274	233	22.78	3.697	458	20.24	3.285	683	14.75	2.394
9	1.83	0.296	234	22.85	3.709	459	20.21	3.280	684	14.73	2.391
10	1.96	0.318	235	22.93	3.722	460	20.18	3.275	685	14.72	2.389
11	2.09	0.340	236	23.00	3.733	461	20.15	3.270	686	14.69	2.385
12	2.22	0.360	237	23.08	3.745	462	20.12	3.265	687	14.68	2.382
13	2.34	0.380	238	23.15	3.758	463	20.09	3.260	688	14.65	2.378
14	2.46	0.400	239	23.22	3.769	464	20.06	3.255	689	14.64	2.376
15	2.58	0.419	240	23.30	3.782	465	20.02	3.250	690	14.62	2.373
16	2.70	0.438	241	23.37	3.793	466	20.00	3.246	691	14.60	2.369
17	2.82	0.457	242	23.45	3.806	467	19.97	3.241	692	14.58	2.366
18	2.93	0.476	243	23.52	3.817	468	19.93	3.235	693	14.56	2.363
19	3.05	0.494	244	23.59	3.829	469	19.90	3.230	694	14.54	2.360
20	3.16	0.513	245	23.67	3.841	470	19.88	3.226	695	14.52	2.357
21	3.27	0.531	246	23.74	3.853	471	19.85	3.221	696	14.50	2.353
22	3.39	0.550	247	23.81	3.865	472	19.81	3.216	697	14.48	2.350
23	3.50	0.568	248	23.89	3.877	473	19.79	3.212	698	14.46	2.347
24	3.61	0.587	249	23.96	3.888	474	19.76	3.206	699	14.44	2.344
25	3.73	0.605	250	24.03	3.901	475	19.73	3.202	700	14.42	2.341
26	3.84	0.623	251	24.10	3.912	476	19.70	3.197	701	14.40	2.338
27	3.95	0.641	252	24.18	3.924	477	19.67	3.192	702	14.39	2.335
28	4.06	0.659	253	24.25	3.935	478	19.64	3.188	703	14.36	2.331
29	4.18	0.678	254	24.32	3.947	479	19.61	3.183	704	14.35	2.328
30	4.29	0.696	255	24.39	3.959	480	19.58	3.178	705	14.33	2.326
31	4.40	0.714	256	24.47	3.971	481	19.55	3.173	706	14.31	2.322
32	4.51	0.732	257	24.54	3.982	482	19.52	3.169	707	14.29	2.319
33	4.62	0.750	258	24.61	3.994	483	19.49	3.164	708	14.27	2.316
34	4.73	0.768	259	24.68	4.006	484	19.47	3.159	709	14.25	2.313
35	4.84	0.786	260	24.75	4.017	485	19.43	3.154	710	14.23	2.310
36	4.95	0.804	261	24.82	4.029	486	19.41	3.150	711	14.21	2.307
37	5.07	0.822	262	24.89	4.040	487	19.38	3.145	712	14.19	2.304
38	5.18	0.840	263	24.97	4.052	488	19.35	3.141	713	14.18	2.301
39	5.29	0.858	264	25.04	4.064	489	19.32	3.136	714	14.15	2.297
40	5.40	0.876	265	25.11	4.075	490	19.29	3.131	715	14.14	2.294
41	5.51	0.894	266	25.18	4.087	491	19.27	3.127	716	14.12	2.291
42	5.62	0.912	267	25.25	4.098	492	19.24	3.122	717	14.10	2.289
43	5.73	0.929	268	25.32	4.109	493	19.21	3.117	718	14.08	2.286
44	5.84	0.948	269	25.39	4.121	494	19.18	3.113	719	14.06	2.282
45	5.95	0.966	270	25.46	4.132	495	19.15	3.109	720	14.04	2.279
46	6.06	0.983	271	25.53	4.144	496	19.12	3.104	721	14.02	2.276

*D. W. Plunk*  
755.75

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Dawson Aquifer - R&T Enterprises**

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47	6.17	1.001	272	25.60	4.156	497	19.10	3.099	722	14.01	2.273
48	6.28	1.019	273	25.67	4.166	498	19.07	3.095	723	13.99	2.270
49	6.38	1.036	274	25.74	4.178	499	19.04	3.091	724	13.97	2.267
50	6.49	1.054	275	25.81	4.190	500	19.01	3.085	725	13.95	2.264
51	6.60	1.071	276	25.88	4.200	501	18.98	3.081	726	13.93	2.261
52	6.71	1.089	277	25.95	4.212	502	18.96	3.077	727	13.91	2.258
53	6.82	1.106	278	26.02	4.224	503	18.93	3.072	728	13.90	2.255
54	6.92	1.124	279	26.09	4.234	504	18.90	3.068	729	13.88	2.252
55	7.03	1.141	280	26.16	4.246	505	18.88	3.064	730	13.86	2.249
56	7.14	1.158	281	26.23	4.257	506	18.85	3.059	731	13.84	2.246
57	7.24	1.176	282	26.30	4.269	507	18.82	3.054	732	13.82	2.243
58	7.35	1.193	283	26.37	4.279	508	18.79	3.050	733	13.80	2.240
59	7.46	1.211	284	26.44	4.291	509	18.77	3.046	734	13.78	2.237
60	7.57	1.228	285	26.51	4.302	510	18.74	3.041	735	13.77	2.234
61	7.67	1.245	286	26.58	4.313	511	18.71	3.037	736	13.75	2.231
62	7.78	1.262	287	26.64	4.324	512	18.68	3.033	737	13.73	2.228
63	7.88	1.279	288	26.71	4.335	513	18.66	3.028	738	13.71	2.226
64	7.99	1.296	289	26.78	4.347	514	18.63	3.024	739	13.69	2.223
65	8.09	1.313	290	26.85	4.358	515	18.60	3.020	740	13.68	2.220
66	8.20	1.330	291	26.92	4.369	516	18.58	3.015	741	13.66	2.217
67	8.30	1.348	292	26.99	4.380	517	18.55	3.011	742	13.64	2.214
68	8.41	1.364	293	27.05	4.391	518	18.52	3.007	743	13.62	2.211
69	8.51	1.381	294	27.12	4.402	519	18.50	3.002	744	13.61	2.208
70	8.61	1.398	295	27.19	4.413	520	18.47	2.998	745	13.58	2.205
71	8.72	1.415	296	27.26	4.424	521	18.44	2.993	746	13.57	2.202
72	8.82	1.432	297	27.33	4.435	522	18.42	2.989	747	13.55	2.199
73	8.92	1.448	298	27.39	4.446	523	18.39	2.985	748	13.53	2.196
74	9.03	1.465	299	27.46	4.457	524	18.36	2.980	749	13.51	2.193
75	9.13	1.482	300	27.53	4.468	525	18.34	2.976	750	13.49	2.190
76	9.23	1.498	301	27.29	4.429	526	18.31	2.972	751	13.48	2.187
77	9.33	1.514	302	27.09	4.396	527	18.28	2.967	752	13.46	2.184
78	9.43	1.531	303	26.92	4.369	528	18.26	2.963	753	13.44	2.181
79	9.53	1.547	304	26.78	4.346	529	18.23	2.959	754	13.42	2.178
80	9.63	1.563	305	26.66	4.326	530	18.21	2.955	755	13.40	2.176
81	9.74	1.580	306	26.55	4.310	531	18.18	2.951	756	13.39	2.173
82	9.83	1.596	307	26.46	4.295	532	18.15	2.946	757	13.37	2.170
83	9.94	1.613	308	26.38	4.281	533	18.13	2.942	758	13.36	2.168
84	10.03	1.629	309	26.30	4.269	534	18.10	2.938	759	13.34	2.165
85	10.14	1.645	310	26.23	4.258	535	18.08	2.934	760	13.32	2.162
86	10.24	1.661	311	26.17	4.248	536	18.05	2.930	761	13.30	2.159
87	10.33	1.677	312	26.11	4.237	537	18.02	2.925	762	13.28	2.156
88	10.43	1.693	313	26.05	4.229	538	18.00	2.921	763	13.27	2.153
89	10.53	1.709	314	26.00	4.219	539	17.98	2.917	764	13.25	2.150
90	10.63	1.726	315	25.94	4.211	540	17.95	2.913	765	13.23	2.147
91	10.73	1.742	316	25.89	4.203	541	17.92	2.909	766	13.21	2.144
92	10.83	1.758	317	25.84	4.195	542	17.90	2.905	767	13.19	2.142

**Summary of Total Depletion 16.23 AF/Yr for 300 Yrs  
Dawson Aquifer - R&T Enterprises**

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93	10.92	1.773	318	25.79	4.186	543	17.87	2.901	768	13.18	2.139
94	11.02	1.789	319	25.74	4.178	544	17.85	2.896	769	13.16	2.136
95	11.12	1.805	320	25.69	4.170	545	17.82	2.892	770	13.15	2.134
96	11.22	1.821	321	25.65	4.163	546	17.80	2.888	771	13.13	2.131
97	11.31	1.836	322	25.60	4.155	547	17.77	2.884	772	13.11	2.128
98	11.41	1.852	323	25.55	4.147	548	17.75	2.880	773	13.09	2.125
99	11.51	1.868	324	25.51	4.140	549	17.72	2.876	774	13.07	2.122
100	11.60	1.883	325	25.46	4.132	550	17.69	2.872	775	13.06	2.119
101	11.70	1.899	326	25.41	4.124	551	17.67	2.868	776	13.04	2.116
102	11.79	1.914	327	25.36	4.116	552	17.64	2.864	777	13.03	2.114
103	11.89	1.930	328	25.31	4.108	553	17.62	2.859	778	13.01	2.111
104	11.99	1.945	329	25.26	4.100	554	17.60	2.856	779	12.99	2.108
105	12.08	1.960	330	25.22	4.093	555	17.57	2.851	780	12.97	2.105
106	12.17	1.976	331	25.17	4.085	556	17.55	2.848	781	12.95	2.102
107	12.27	1.992	332	25.13	4.078	557	17.52	2.844	782	12.94	2.099
108	12.36	2.007	333	25.08	4.070	558	17.50	2.840	783	12.92	2.097
109	12.46	2.022	334	25.03	4.063	559	17.47	2.836	784	12.90	2.094
110	12.55	2.037	335	24.98	4.055	560	17.45	2.832	785	12.89	2.092
111	12.65	2.052	336	24.93	4.047	561	17.42	2.828	786	12.87	2.089
112	12.74	2.068	337	24.89	4.040	562	17.40	2.824	787	12.85	2.086
113	12.83	2.083	338	24.84	4.032	563	17.37	2.820	788	12.84	2.084
114	12.92	2.097	339	24.80	4.024	564	17.35	2.816	789	12.82	2.081
115	13.02	2.113	340	24.75	4.016	565	17.32	2.812	790	12.80	2.078
116	13.11	2.128	341	24.70	4.009	566	17.30	2.808	791	12.78	2.075
117	13.20	2.143	342	24.66	4.002	567	17.28	2.804	792	12.77	2.073
118	13.29	2.157	343	24.61	3.994	568	17.25	2.800	793	12.75	2.070
119	13.39	2.173	344	24.56	3.987	569	17.23	2.796	794	12.73	2.067
120	13.48	2.187	345	24.51	3.979	570	17.21	2.793	795	12.72	2.064
121	13.57	2.202	346	24.47	3.972	571	17.18	2.788	796	12.70	2.062
122	13.66	2.217	347	24.43	3.964	572	17.16	2.785	797	12.69	2.059
123	13.75	2.232	348	24.38	3.956	573	17.14	2.781	798	12.67	2.056
124	13.84	2.247	349	24.33	3.949	574	17.11	2.777	799	12.65	2.054
125	13.94	2.262	350	24.29	3.942	575	17.09	2.773	800	12.64	2.051
126	14.02	2.276	351	24.24	3.935	576	17.06	2.770	801	12.62	2.048
127	14.11	2.291	352	24.19	3.927	577	17.04	2.765	802	12.60	2.045
128	14.20	2.305	353	24.15	3.919	578	17.02	2.762	803	12.59	2.043
129	14.29	2.320	354	24.10	3.912	579	16.99	2.758	804	12.57	2.040
130	14.39	2.335	355	24.06	3.905	580	16.97	2.754	805	12.55	2.037
131	14.48	2.349	356	24.01	3.898	581	16.94	2.750	806	12.54	2.035
132	14.57	2.364	357	23.97	3.890	582	16.92	2.746	807	12.52	2.032
133	14.65	2.378	358	23.93	3.883	583	16.90	2.743	808	12.50	2.029
134	14.74	2.393	359	23.88	3.876	584	16.88	2.739	809	12.49	2.027
135	14.83	2.407	360	23.84	3.869	585	16.85	2.736	810	12.47	2.024
136	14.92	2.421	361	23.79	3.861	586	16.83	2.731	811	12.45	2.021
137	15.01	2.436	362	23.75	3.855	587	16.81	2.728	812	12.44	2.019
138	15.10	2.450	363	23.71	3.848	588	16.78	2.724	813	12.42	2.016

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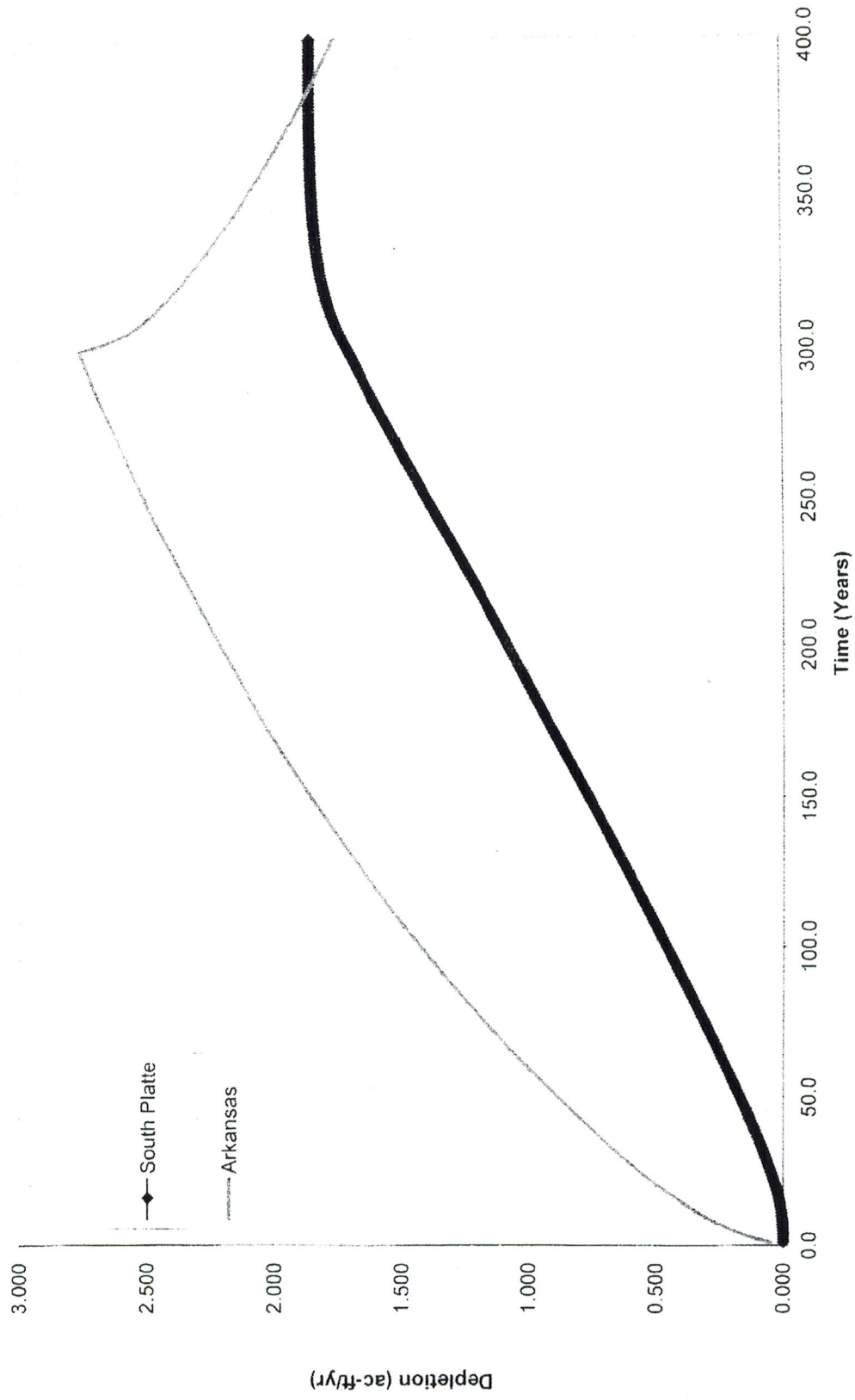
Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)	Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)	Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)	Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)
139	15.19	2.465	364	23.66	3.840	589	16.76	2.720	814	12.40	2.013
140	15.27	2.478	365	23.62	3.833	590	16.74	2.717	815	12.39	2.011
141	15.36	2.493	366	23.58	3.827	591	16.72	2.713	816	12.37	2.008
142	15.45	2.507	367	23.53	3.819	592	16.69	2.709	817	12.36	2.006
143	15.53	2.521	368	23.49	3.812	593	16.67	2.705	818	12.34	2.003
144	15.62	2.536	369	23.45	3.806	594	16.65	2.702	819	12.32	2.000
145	15.71	2.549	370	23.40	3.798	595	16.62	2.698	820	12.31	1.998
146	15.80	2.564	371	23.36	3.792	596	16.60	2.694	821	12.29	1.995
147	15.88	2.578	372	23.32	3.785	597	16.58	2.691	822	12.28	1.993
148	15.97	2.592	373	23.28	3.778	598	16.56	2.687	823	12.26	1.990
149	16.06	2.606	374	23.23	3.771	599	16.53	2.683	824	12.24	1.987
150	16.14	2.620	375	23.19	3.764	600	16.51	2.680	825	12.23	1.985
151	16.23	2.633	376	23.15	3.758	601	16.49	2.676	826	12.21	1.982
152	16.31	2.648	377	23.11	3.751	602	16.47	2.673	827	12.20	1.980
153	16.40	2.662	378	23.07	3.744	603	16.44	2.668	828	12.18	1.977
154	16.48	2.675	379	23.03	3.738	604	16.42	2.665	829	12.17	1.975
155	16.57	2.689	380	22.99	3.731	605	16.40	2.661	830	12.15	1.972
156	16.65	2.703	381	22.95	3.724	606	16.37	2.657	831	12.13	1.969
157	16.74	2.717	382	22.91	3.718	607	16.35	2.654	832	12.12	1.967
158	16.82	2.731	383	22.87	3.711	608	16.33	2.650	833	12.10	1.964
159	16.91	2.744	384	22.83	3.705	609	16.31	2.646	834	12.09	1.962
160	16.99	2.758	385	22.79	3.698	610	16.28	2.643	835	12.07	1.959
161	17.08	2.772	386	22.75	3.692	611	16.26	2.639	836	12.06	1.957
162	17.16	2.786	387	22.71	3.685	612	16.24	2.636	837	12.04	1.954
163	17.25	2.799	388	22.67	3.679	613	16.22	2.633	838	12.03	1.952
164	17.33	2.813	389	22.63	3.672	614	16.20	2.629	839	12.01	1.949
165	17.41	2.826	390	22.59	3.667	615	16.18	2.625	840	11.99	1.947
166	17.50	2.840	391	22.55	3.660	616	16.15	2.622	841	11.98	1.944
167	17.58	2.854	392	22.51	3.653	617	16.13	2.618	842	11.96	1.942
168	17.66	2.867	393	22.47	3.647	618	16.11	2.615	843	11.94	1.939
169	17.75	2.880	394	22.43	3.641	619	16.09	2.611	844	11.93	1.936
170	17.83	2.894	395	22.39	3.635	620	16.06	2.607	845	11.91	1.934
171	17.91	2.907	396	22.36	3.629	621	16.04	2.604	846	11.90	1.931
172	18.00	2.921	397	22.32	3.622	622	16.02	2.600	847	11.88	1.929
173	18.08	2.934	398	22.28	3.617	623	16.00	2.596	848	11.87	1.926
174	18.16	2.948	399	22.24	3.610	624	15.98	2.593	849	11.86	1.924
175	18.24	2.961	400	22.21	3.604	625	15.96	2.590	850	11.84	1.921
176	18.32	2.974	401	22.17	3.598	626	15.94	2.586	851	11.82	1.919
177	18.41	2.988	402	22.13	3.592	627	15.91	2.583	852	11.81	1.916
178	18.49	3.001	403	22.10	3.586	628	15.89	2.579	853	11.79	1.914
179	18.57	3.014	404	22.06	3.580	629	15.87	2.575	854	11.78	1.911
180	18.65	3.028	405	22.02	3.574	630	15.85	2.572	855	11.76	1.909
181	18.73	3.041	406	21.98	3.568	631	15.83	2.569	856	11.75	1.907
182	18.81	3.054	407	21.95	3.562	632	15.81	2.565	857	11.73	1.904
183	18.89	3.067	408	21.91	3.556	633	15.78	2.562	858	11.72	1.902
184	18.98	3.080	409	21.87	3.550	634	15.76	2.558	859	11.70	1.899

**Summary of Total Depletion 16.23 AF/Yr for 300 Yrs  
Dawson Aquifer - R&T Enterprises**

Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)	Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)	Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)	Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)
185	19.06	3.093	410	21.84	3.544	635	15.74	2.554	860	11.69	1.897
186	19.14	3.106	411	21.80	3.538	636	15.72	2.552	861	11.67	1.894
187	19.22	3.120	412	21.76	3.532	637	15.70	2.548	862	11.65	1.892
188	19.30	3.133	413	21.73	3.527	638	15.68	2.544	863	11.64	1.889
189	19.38	3.146	414	21.69	3.521	639	15.65	2.541	864	11.62	1.887
190	19.46	3.158	415	21.66	3.515	640	15.64	2.538	865	11.61	1.884
191	19.54	3.171	416	21.62	3.509	641	15.61	2.534	866	11.60	1.882
192	19.62	3.184	417	21.59	3.504	642	15.59	2.531	867	11.58	1.879
193	19.70	3.197	418	21.55	3.498	643	15.57	2.527	868	11.57	1.877
194	19.78	3.210	419	21.52	3.493	644	15.55	2.524	869	11.55	1.875
195	19.86	3.223	420	21.48	3.487	645	15.53	2.520	870	11.53	1.872
196	19.93	3.235	421	21.45	3.481	646	15.51	2.517	871	11.52	1.870
197	20.02	3.248	422	21.41	3.475	647	15.49	2.514	872	11.51	1.868
198	20.10	3.262	423	21.38	3.470	648	15.47	2.510	873	11.49	1.865
199	20.18	3.275	424	21.35	3.464	649	15.44	2.507	874	11.48	1.863
200	20.25	3.287	425	21.31	3.459	650	15.43	2.504	875	11.46	1.860
201	20.33	3.300	426	21.27	3.453	651	15.40	2.500	876	11.44	1.858
202	20.41	3.312	427	21.24	3.448	652	15.38	2.496	877	11.43	1.855
203	20.49	3.325	428	21.21	3.442	653	15.36	2.494	878	11.42	1.853
204	20.56	3.338	429	21.18	3.437	654	15.34	2.490	879	11.40	1.850
205	20.64	3.351	430	21.14	3.431	655	15.32	2.486	880	11.39	1.848
206	20.72	3.363	431	21.11	3.426	656	15.30	2.483	881	11.37	1.846
207	20.80	3.376	432	21.07	3.420	657	15.28	2.480	882	11.36	1.843
208	20.88	3.388	433	21.04	3.415	658	15.26	2.476	883	11.34	1.841
209	20.96	3.401	434	21.01	3.409	659	15.24	2.473	884	11.33	1.839
210	21.03	3.414	435	20.97	3.404	660	15.22	2.470	885	11.32	1.837
211	21.11	3.426	436	20.94	3.398	661	15.20	2.467	886	11.30	1.834
212	21.19	3.439	437	20.91	3.393	662	15.18	2.463	887	11.28	1.831
213	21.27	3.451	438	20.88	3.388	663	15.16	2.460	888	11.27	1.829
214	21.34	3.464	439	20.84	3.383	664	15.14	2.457	889	11.26	1.827
215	21.42	3.476	440	20.81	3.377	665	15.11	2.453	890	11.24	1.824
216	21.49	3.488	441	20.78	3.372	666	15.10	2.450	891	11.23	1.822
217	21.57	3.501	442	20.75	3.367	667	15.07	2.447	892	11.21	1.820
218	21.65	3.514	443	20.71	3.362	668	15.06	2.444	893	11.20	1.818
219	21.72	3.526	444	20.68	3.356	669	15.03	2.440	894	11.18	1.815
220	21.80	3.538	445	20.65	3.351	670	15.02	2.437	895	11.17	1.813
221	21.88	3.551	446	20.62	3.346	671	14.99	2.433	896	11.15	1.810
222	21.95	3.563	447	20.59	3.341	672	14.98	2.431	897	11.14	1.808
223	22.03	3.575	448	20.55	3.335	673	14.95	2.427	898	11.13	1.806
224	22.10	3.588	449	20.52	3.330	674	14.94	2.424	899	11.11	1.803
225	22.18	3.600	450	20.49	3.325	675	14.91	2.420	900	11.10	1.801



# Stream Depletion from Pumping in SEC 19 T11S R66W



# Water Resources Report\_v1.pdf Markup Summary

## Cloud+ (5)



**Subject:** Cloud+  
**Page Label:** 1  
**Author:** John Green  
**Date:** 11/17/2020 7:44:53 PM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Irrigation use is not listed in Water Summary Report



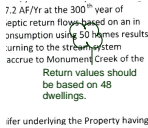
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**Page Label:** 1  
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**Date:** 11/18/2020 2:00:42 PM  
**Status:**  
**Color:** ■  
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**Space:**

Well Permit# 260946 is not addressed.



**Subject:** Cloud+  
**Page Label:** 2  
**Author:** John Green  
**Date:** 11/18/2020 2:03:46 PM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Water Information Summary identifies that you are only withdrawing from the Dawson Aquifer. Therefore, all analyses should be based only on that aquifer.



**Subject:** Cloud+  
**Page Label:** 3  
**Author:** John Green  
**Date:** 11/18/2020 2:06:13 PM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Return values should be based on 48 dwellings.



**Subject:** Cloud+  
**Page Label:** 1  
**Author:** John Green  
**Date:** 11/18/2020 2:08:57 PM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Water Resources Report has not addressed all criteria for review pursuant to Section 8.4.7 of the revised Land Development Code. Please include additional information