DPH-14 Report on Point Classification

The USGS Lidar Base Specification Version 1.3 states: "The minimum classification scheme required for lidar data is listed in Table 5. Additional classes may be required on specific projects. The following requirements apply to point classification: (1) All points not identified as withheld shall be properly classified. (2) No points in the classified LAS deliverable may remain assigned to class 0. Model key points, if calculated, shall be identified using the key point bit flag as defined in LAS specification version 1.4–R13 (ASPRS, 2011). Model key points may, in addition, be identified using class 8 at the discretion of the data producer. No classification code or value may be used to identify overage (overlap) points. All overage (overlap) points shall be identified using the overlap bit flag, as defined in LAS specification version 1.4–R13 (ASPRS, 2011)."

Table 5. Minimum light detection and ranging data classification scheme.

Code	Description								
1	Processed, but unclassified								
2	Bare earth								
7	Low noise								
9	Water								
17	Bridge deck								
18	High noise								
20	Ignored ground (typically breakline proximity)								
21	Snow (if present and identifiable)								
22	Temporal exclusion (typically nonfavored data in intertidal zones)								

The purpose of this section is to report total numbers of points for each class within the LAS files.

DPH-14 Report on Point Classification - Class Totals

The purpose of this section is to list the number of points in each classification so that the user can determine if any points exist in unintended classes.

Cla	ss Total	MKP	WH	Class	Total	MKP	WH	Class	Total	MKP	WH	Class	Total	MKP	WH
0	00	00		64	00	00	00	128	00	00	00	192	00	00	00
1	2,691,877,834		2,478,495	65	00	00	00	129	00	00	00	193	00	00	00
	28,806,945,801	00		66	00	00	00	130	00	00	00	194	00	00	00
3 4	00	00		67 68	00 00	00 00	00	131 132	00 00	00 00	00 00	195 196	00 00	00 00	00
5	00	00		69	00	00	00	133	00	00	00	197	00	00	00
6	00	00		70	00	00	00	134	00	00	00	198	00	00	00
7	101,417	00		71	00	00	00	135	00	00	00	199	00	00	00
8	00	00		72	00	00	00	136	00	00	00	200	00	00	00
9	115,877	00		73	00	00	00	137	00	00	00	201	00	00	00
10	00	00	00	74	00	00	00	138	00	00	00	202	00	00	00
11	00	00	00	75	00	00	00	139	00	00	00	203	00	00	00
12	00	00	00	76	00	00	00	140	00	00	00	204	00	00	00
13	00	00		77	00	00	00	141	00	00	00	205	00	00	00
14	00	00		78	00	00	00	142	00	00	00	206	00	00	00
15	00	00		79	00	00	00	143	00	00	00	207	00	00	00
16	00	00		80	00	00	00	144	00	00	00	208	00	00	00
17	160,836 42,779	00		81 82	00 00	00 00	00 00	145 146	00 00	00 00	00 00	209 210	00 00	00 00	00
18 19	42,779	00		83	00	00	00	146	00	00	00	210	00	00	00
20	9,260	00		84	00	00	00	148	00	00	00	212	00	00	00
21	00	00		85	00	00	00	149	00	00	00	213	00	00	00
22	00	00		86	00	00	00	150	00	00	00	214	00	00	00
23	00	00	00	87	00	00	00	151	00	00	00	215	00	00	00
24	00	00	00	88	00	00	00	152	00	00	00	216	00	00	00
25	00	00	00	89	00	00	00	153	00	00	00	217	00	00	00
26	00	00	00	90	00	00	00	154	00	00	00	218	00	00	00
27	00	00		91	00	00	00	155	00	00	00	219	00	00	00
28	00	00		92	00	00	00	156	00	00	00	220	00	00	00
29	00	00		93	00	00	00	157	00	00	00	221	00	00	00
30	00	00		94	00	00	00	158	00	00	00	222	00	00	00
31	00	00		95	00 00	00 00	00	159	00 00	00 00	00	223 224	00	00 00	00
32 33	00	00		96 97	00	00	00	160 161	00	00	00	224	00 00	00	00
34	00	00		98	00	00	00	162	00	00	00	226	00	00	00
35	00	00		99	00	00	00	163	00	00	00	227	00	00	00
36	00	00		100	00	00	00	164	00	00	00	228	00	00	00
37	00	00	00	101	00	00	00	165	00	00	00	229	00	00	00
38	00	00	00	102	00	00	00	166	00	00	00	230	00	00	00
39	00	00	00	103	00	00	00	167	00	00	00	231	00	00	00
40	00	00		104	00	00	00	168	00	00	00	232	00	00	00
41	00	00		105	00	00	00	169	00	00	00	233	00	00	00
42	00	00		106	00	00	00	170	00	00	00	234	00	00	00
43	00	00		107	00	00 00	00	171	00	00	00	235	00	00	00
44 45	00	00		108 109	00 00	00	00 00	172 173	00 00	00 00	00	236 237	00 00	00 00	00
46	00	00		110	00	00	00	174	00	00	00	238	00	00	00
47	00	00		111	00	00	00	175	00	00	00	239	00	00	00
48	00	00		112	00	00	00	176	00	00	00	240	00	00	00
49	00	00	00	113	00	00	00	177	00	00	00	241	00	00	00
50	00	00	00	114	00	00	00	178	00	00	00	242	00	00	00
51	00	00	00	115	00	00	00	179	00	00	00	243	00	00	00
52	00	00	00	116	00	00	00	180	00	00	00	244	00	00	00
53	00	00		117	00	00	00	181	00	00	00	245	00	00	00
54	00	00		118	00	00	00	182	00	00	00	246	00	00	00
55	00	00		119	00	00	00	183	00	00	00	247	00	00	00
56	00	00		120	00	00	00	184	00	00	00	248	00	00	00
57 58	00	00		121	00	00 00	00	185	00 00	00 00	00 00	249	00	00 00	00
58	00	00		122 123	00 00	00	00	186 187	00	00	00	250 251	00 00	00	00
60	00	00		123	00	00	00	188	00	00	00	251	00	00	00
61	00	00		125	00	00	00	189	00	00	00	252	00	00	00
62	00	00		126	00	00	00	190	00	00	00	254	00	00	00
63	00	00		127	00	00	00	191	00	00	00	255	00	00	00
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Bold – point counts in 'Minimum classified point cloud classification scheme' (see table on previous page)

– point counts in Classes beyond the minimum

- disallowed point counts per USGS spec

- not all Class 0 points flagged as Withheld