

Table S3. A catalogue of potentially dangerous lakes in the Djungarskiy Alatau. Peak discharge values represent the ‘worst case’ scenario following complete emptying of lake basins. Area change between 2002 and 2014 is shown. ‘*’ sign denotes that the lake is a part of a cascade of lakes. Lakes, which outburst before, are highlighted in bold. Lake N25 (Kapkan) has been artificially lowered several times since August 2014.

No	River basin	Coordinates (N, E)	Area 2014 (m ²)	Volume (10 ³ m ³)	Discharge (m ³ s ⁻¹)	Area change (%)	Lake type	Potential damage to
40*	Usek	44° 45' 22.029" N 79° 56' 44.166" E	222,375	3,346	6,692	0	1	Two settlements (~500 houses), roads, agricultural fields, bridges, irrigation canals
5	Usek	44° 42' 48.546" N 79° 52' 28.975" E	202,164	2,903	5,807	29	1	
7*	Usek	44° 40' 50.776" N 79° 33' 29.316" E	39,024	251	502	53	1	
27	Usek	44° 34' 10.087" N 80° 13' 30.169" E	34,369	208	416	0	2	
83	Usek	44° 41' 41.633" N 79° 44' 12.103" E	28,766	160	319	0	2	
1	Usek	44° 42' 7.629" N 79° 39' 50.794" E	26,084	138	276	129	2	
4*	Usek	44° 42' 25.161" N 79° 55' 21.543" E	23662	129	239	25	1	
8	Usek	44° 32' 59.693" N 80° 12' 43.673" E	22,104	108	216	-19	2	
25*	Khorgos	44° 48' 14.059" N 80° 5' 1.557" E	198,437	2,824	5,648	0	2	Settlements, international trading centre, roads, bridges, agricultural fields
19*	Khorgos	44° 47' 16.294" N 80° 5' 25.250" E	74,989	664	1,327	0	2	
10*	Khorgos	44° 49' 13.359" N 80° 14' 8.926" E	38,976	251	503	0	2	
35*	Khorgos	44° 33' 58.749" N 80° 17' 0.083" E	32,851	194	389	16	2	
32*	Khorgos	44° 42' 31.219" N 80° 7' 47.183" E	32,179	189	377	0	2	

43*	Sarkand	45° 4' 43.886" N 79° 55' 56.627" E	115,999	1270	2,540	0	2	Town of Sarkand, roads, dam, bridges, water abstraction facilities
29*	Sarkand	45° 5' 2.454" N 80° 4' 48.752" E	29,664	167	334	64	1	
44*	Sarkand	45° 4' 40.984" N 79° 55' 34.597" E	27,331	148	296	108	2	
49	Sarkand	45° 4' 55.047" N 79° 55' 56.840" E	23,687	120	239	0	2	
28	Tentek	45° 15' 13.393" N 80° 47' 38.957" E	114,343	1243	2,486	0	2	Village and individual houses, roads, bridges
3	Tentek	45° 10' 28.710" N 80° 59' 18.348" E	86,172	816	1,632	0	2	
34	Tentek	45° 15' 49.845" N 80° 48' 43.902" E	70,692	608	1,215	0	2	
31*	Aksu	44° 58' 44.198"N 79° 42' 19.635"E	80,550	738	1,476	0	1	Village, individual houses, reservoir, farm, roads, bridges, electricity transmission lines
33	Aksu	44° 58' 53.154" N 79° 31' 50.235" E	71,694	621	1,241	0	2	
9*	Aksu	44° 56' 54.523" N 79° 35' 28.978" E	68,825	584	1,168	57	1	
13*	Aksu	44° 56' 46.294" N 79° 36' 7.137" E	67,015	561	1,123	121	1	
41*	Aksu	45° 2' 58.394" N 79° 49' 59.089" E	44,422	305	609	69	1	
6*	Aksu	45° 2' 45.471" N 79° 50' 37.556" E	39,638	257	514	14	2	
38	Aksu	45° 4' 18.516" N 79° 45' 43.165" E	36,622	229	457	94	1	
39*	Aksu	45° 4' 28.929" N 79° 47' 3.660" E	34,445	209	417	166	1	
45*	Aksu	45° 3' 21.869" N 79° 41' 55.655" E	21,070	100	201	0	2	
15*	Aksu	44° 56' 51.057" N 79° 36' 30.445" E	18,076	78	160	72	1	
17*	Aksu	44° 56' 46.833" N 79° 36' 52.804" E	11,055	39	77	0	2	
50*	Aksu	44° 58' 35.636" N	9,809	32	65	522	1	

		79° 31' 56.610" E						
18*	Bien	44° 58' 22.232" N 79° 25' 38.218" E	49,802	361	722	0	1	Village, individual houses, roads, agricultural fields
16*	Bien	44° 58' 44.285" N 79° 25' 7.825" E	11,449	41	81	New	1	
14*	Bien	44° 59' 7.573" N 79° 25' 5.355" E	47,647	338	676	-18	2	
22*	Bien	44° 57' 42.138" N 79° 28' 43.327" E	44,262	303	606	New	1	
23*	Bien	44° 58' 7.044" N 79° 28' 19.236" E	36,957	232	463	0	2	
21*	Bien	44° 57' 57.318" N 79° 28' 38.144" E	19,088	87	173	0	2	
24	Bien	44° 58' 10.910" N 79° 27' 53.807" E	79,777	728	1,455	0	2	
30	Kora	44° 53' 52.431" N 79° 18' 17.413" E	60,913	487	974	0	2	Town of Tekele, individual houses, roads, bridges
26	Kora	44° 59' 3.108" N 79° 10' 49.257" E	58,438	458	916	0	1	
11*	Kora	44° 55' 21.910" N 79° 14' 1.043" E	49,391	356	713	0	2	
20*	Kora	44° 54' 24.098" N 79° 15' 49.497" E	30,820	177	354	98	1	
36*	Kora	44° 55' 29.887" N 79° 12' 24.359" E	17,308	75	150	0	2	
47	Koksu	44° 53' 0.591" N 79° 20' 16.281" E	36,748	230	459	0	2	Road, bridges
12	Koktal	44° 39' 34.368" N 79° 10' 7.513" E	36,438	227	453	0	2	Village, road, irrigation canal
48	Koktal	44° 39' 15.092" N 79° 12' 6.832" E	32,265	189	378	0	2	
42*	Lepsy	45° 6' 54.407" N 80° 35' 46.723" E	27,464	149	298	0	1	Roads, bridges, agricultural fields
37*	Lepsy	45° 8' 23.802" N 80° 33' 11.708" E	25,941	137	274	299	1	
2	Lepsy	45° 10' 56.601" N 80° 29' 14.173" E	22,552	111	222	0	2	