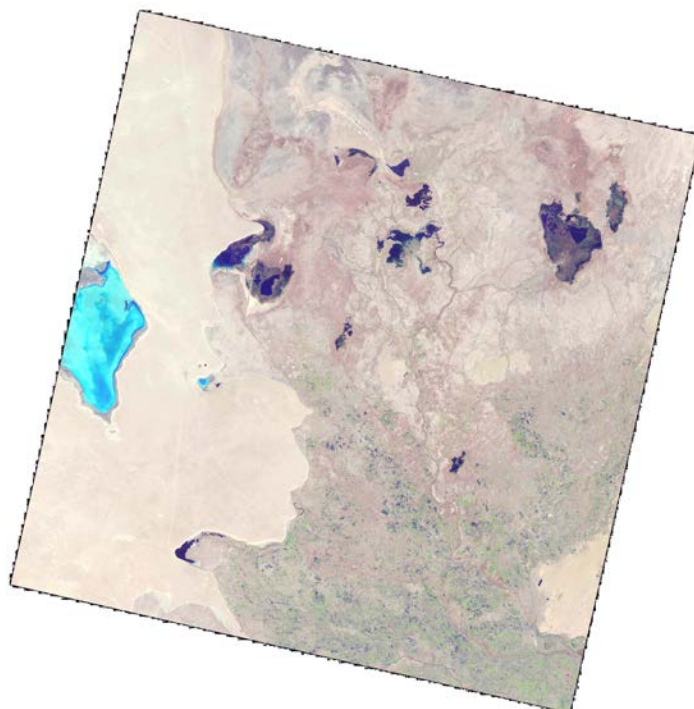


## **Monitoring of changes in the water surface and wetland area of the Aral Sea and the Aral Region**

SIC specialists are constantly monitoring the state of the Southern Aral Sea and parts of the Greater Aral Sea by using the Landsat 8-9 OLI images. The use of the NDVI index with refined threshold values has been started, which allow recognizing three categories of surfaces: 1) open water surface, 2) wetlands, 3) land. According to the image from 28 May 2024, the areas of wetlands and open water surface were determined



**Figure 1 Southern part of the Aral Sea  
Landsat 8-9, 28 May 2024**

**Table 1****Areas of wetlands in the Aral Region, ha**

<b>Water body</b>	<b>02.11.2023</b>	<b>01.03.2024</b>	<b>18.04.2024</b>	<b>28.05.2024</b>
Sudoche	33806.8	13257.2	16276	8755
Mejdureche	2117.5	3095.3	1191	669
Rybatche	2480.9	1812.1	241	73
Muynak	2537.9	2989.1	2136	177
Djiltyrbas dam-terminated	9370.7	16892.4	16353	1437
Djiltyrbas (together with former right and left streams)	17307	16697	10236	5929
Dumalak	342.2	632.6	37	11.34
Makpalkul	488.3	559.0	385	568
Mashan Karadjar	3028.9	2595.2	1388	969
Water surface southward of Muynak	2949.2	1171.7	166	2.4
Water surface along Kazakhdarya river channel	93.0	76.3	11	2.07
Zakirkol	25.8	84.3	117	71.72
<b>Total:</b>	<b>74548.6</b>	<b>59862.7</b>	<b>48537</b>	<b>18664.53</b>

**Table 2****The area of open water surface in the Aral region, ha**

<b>Water body</b>	<b>02.11.2023</b>	<b>01.03.2024</b>	<b>18.04.2024</b>	<b>28.05.2024</b>
Sudoche	9686.43	14748.03	15293	10858
Mejdureche	9016.56	12208.68	7391	2651
Rybatche	0.18	1493.82	1996	1822
Muynak	24.39	1172.88	1382	212
Djiltyrbas dam-terminated	5373.82	15505.2	14247	5975
Djiltyrbas (together with former right and left streams)	483.75	1164	1771	90.36
Dumalak	0.09	0	0	0
Makpalkul	307.53	3261.42	3180	302
Mashan Karadjar	544.77	1519.11	1150	100
Water surface southward of Muynak	0	44.91	0	0
Water surface along Kazakhdarya river	1.17	0.09	0	0

<b>Water body</b>	<b>02.11.2023</b>	<b>01.03.2024</b>	<b>18.04.2024</b>	<b>28.05.2024</b>
channel				
Zakirkol	139.14	740.52	534	116
<b>Total:</b>	<b>25577.83</b>	<b>51858.66</b>	<b>46944</b>	<b>22126.36</b>

**Table 3**

**Dried ground area\* in the Aral Region, ha**

<b>Water body</b>	<b>02.11.2023</b>	<b>01.03.2024</b>	<b>18.04.2024</b>	<b>28.05.2024</b>
Sudoche	29203.69	44691.7	41128	53084
Mejdureche	26649.92	22479.95	29202	34464
Rybatche	9011.88	8187.03	9256	9598
Muynak	13601.7	12001.95	12646	15775
Djiltyrbas dam-terminated	32727.86493	15074.73493	16872.39493	40060.39493
Djiltyrbas (together with former right and left streams)	81160.25	81090	86944	92931.64
Dumalak	15707.64	15417.39	16013	16038.66
Makpalkul	7888.13	4863.5	5119	7814
Mashan Karadjar	23627.28	23086.65	24663	26132
Water surface southward of Muynak	6655.79	8388.38	9439	9602.6
Water surface along Kazakhdarya river channel	4657.27	4675.09	4740.5	4749.43
Zakirkol	2626.33	1966.45	2140.3	2603.58
<b>Total:</b>	<b>253517.7</b>	<b>241922.8</b>	<b>258163</b>	<b>312853.3</b>

\* bare soil, dense or rare vegetation

**Table 4****Inflow to Inflow to the Aral Region and Aral Sea in 2024, mln.m<sup>3</sup>**

Month	From Amu Darya River	from canal systems	collector-drainage runoff	Total	Plan	Runoff from North Aral Sea
January	30	34	30	<b>94</b>	774	0
February	22	37	26	<b>85</b>	167	0
March	19	0	107	<b>126</b>	185	0
April	37	0	219	<b>256</b>	180	0

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