

Water management situation in the Syr Darya and Amu Darya River basins during non-growing season 2025-2026

Syr Darya River basin

During the non-growing season 2025-2026, the actual inflow to the upper reservoirs of the Syr Darya River basin (Toktogul, Andijan, Charvak) amounted to 5.27 km³, or 100% of the norm and 109% of the BWO Syr Darya forecast. The inflow to the Toktogul reservoir was 3.05 km³ or 106 % of the forecast. The inflow to the Andijan reservoir was 4% lower than expected, while the inflow to the Charvak reservoir was 28% higher than expected. The total actual water releases from the upper reservoirs amounted to 9.76 km³, which is 5% higher than planned.

The total lateral inflow in the reaches from Toktogul to the Shardara reservoir, including discharges from the Karadarya and Chirchik Rivers were 9.48 km³, or 103% of the expected inflow.

Water releases from the Toktogul reservoir amounted to 7.32 km³, exceeding the planned volume by 0.55 km³ (8%). The above-plan releases can be explained by additional electricity generation at the Toktogul HPP and across the Naryn cascade.

By the end of the season, the water volume in the Toktogul reservoir amounted to 7.10 km³, or 95% of the BWO Syr Darya schedule. The reservoir drawdown reached 4.27 km³, exceeding the planned level by 0.38 km³.

During the non-growing season, the inflow to the Bakhri Tojik reservoir amounted to 10.31 km³, which is 0.68 km³ higher than under the BWO Syr Darya schedule. Water releases from the reservoir to the river totaled 7.93 km³, exceeding the scheduled volume by 0.06 km³. The reservoir storage increased by 2.37 km³, reaching 3.40 km³ by the end of the season.

The inflow to the Shardara reservoir totaled 9.69 km³, which is 0.18 km³ above the schedule set by BWO Syr Darya. As of April 1, 2026, the reservoir storage reached 5.15 km³ (99%). The total discharge from the Shardara reservoir amounted to 4.17 km³, or 90% of the planned volume. This included 4.00 km³ released into the river and 0.17 km³ diverted to the Kyzylkum canal. No discharge into the Arnasay system was planned or carried out.

Water withdrawals from the Naryn and Syr Darya rivers upstream of the Shardara reservoir totaled 3.85 km³ (91% of the water withdrawal limit) during the non-growing season 2025–2026. This included: 0.03 km³ (62% of the limit) for the Kyrgyz Republic, 0.04 km³ (10% of the limit) for the Republic of Tajikistan, and 3.32 km³ (99% of the limit) for the Republic of Uzbekistan. Lower withdrawals for Kyrgyzstan and Tajikistan are explained by the absence of water requests for this period of time.

According to the data from the Committee for the Regulation, Protection, and Use of Water Resources under the Ministry of Water Resources and Irrigation of the Republic of Kazakhstan, the actual inflow to the Aral Sea amounted to 0.53 km³.

Table 1.2 presents the river water balance, while Table 1.3 shows the reservoir water balance.

The available water supply for the countries by reaches of the Syr Darya River basin is presented in Table 1.1.

Table 1.1

Water withdrawal and available water supply of the countries in the Syr Darya River basin (up to the Shardara reservoir) during the non-growing season 2025–2026

№	Water-user country	Water volume, km ³		Available water supply, %
		Limit/schedule	Actual	Season
1	Total water withdrawal	4.22	3.85	91
2	Water withdrawal by state:			
	Kyrgyz Republic	0.05	0.03	62
	Republic of Uzbekistan	3.35	3.32	99
	Republic of Tajikistan	0.37	0.04	10
	Republic of Kazakhstan	0.46	0.47	101
3	Water withdrawal by river reach			
3.1	Toktogul reservoir-Uchkurgan hydroscheme	1.38	1.48	107
	Including:			
	Kyrgyz Republic	0.04	0.03	63
	Republic of Tajikistan	0.08	0.03	41
	Republic of Uzbekistan	1.25	1.42	113
3.2	Uchkurgan hydroscheme Bakhri Tojik hydroscheme	0.25	0.22	88
	Including:			
	Kyrgyz Republic	0.01	0.00	58
	Republic of Tajikistan	0.07	0.00	3
	Republic of Uzbekistan	0.17	0.21	123
3.3	Bakhri Tojik hydroscheme – Shardara reservoir	2.60	2.15	83
	Including:			
	Republic of Kazakhstan	0.46	0.47	101
	Republic of Tajikistan	0.21	0.00	1
	Republic of Uzbekistan	1.92	1.69	88
4	Inflow to the Shardara reservoir	9.51	9.69	102
	Discharge into Arnasay	0.00	0.00	
5	Water supply to the Aral Sea (Karaterent g/s)	1.21	0.53	44

Table 1.2**River water balance of the Syr Darya River during the non-growing season 2025–2026.**

№	Balance item	Water volume, km ³		
		Forecast/plan	Actual	Deviation (actual - plan)
1	Inflow to the Toktogul reservoir	2.88	3.05	0.17
2	Lateral inflow in the Toktogul reservoir – Shardara reservoir reach (+)	9.24	9.48	0.24
	Including:			
2.1	<i>Discharge from the Karadarya river</i>	1.341	1.16	-0.19
2.2	<i>Discharge from the Chirchik river</i>	1.206	0.88	-0.32
2.3	<i>Lateral inflow from CDN and small rivers</i>	6.690	7.44	0.75
3	Flow regulation by reservoir: recharge (+) or diversion of flow (-)	2.14	1.89	-0.25
	Including:			
3.1	<i>Toktogul reservoir</i>	3.89	4.27	0.37
3.2	<i>Bakhri Tojik reservoir</i>	-1.75	-2.37	-0.62
4	Regulated flow (1+2+3)	14.26	14.43	0.17
5	Water diversion in the Toktogul – Shardara reach (-)	-4.22	-3.85	0.37
6	Inflow to the Shardara reservoir	9.51	9.69	0.18
7	Water releases from the Shardara reservoir into the river	4.63	4.00	-0.63
8	Flow depletion in the Shardara–Aral reach ¹	3.42	3.47	0.05
9	Water supply to the Aral Sea (Karateren g/s) ²	1.21	0.53	-0.68

¹ Water withdrawal plus water losses along the river, minus later inflow

² According to the Committee for Regulation, Protection and Use of Water Resources under the Ministry of Water Resources and Irrigation of the Republic of Kazakhstan

Table 1.3

**Reservoir water balance in the Syr Darya River basin during the
non-growing season 2025-2026**

№	Balance item	Water volume, km ³		
		Forecast/plan	Actual	Deviation (actual - plan)
1	Toktogul reservoir			
1.1	Inflow to the reservoir	2.88	3.05	0.17
1.2	Water volume in the reservoir:			
	- beginning of the season (1 October 2025)	11.37	11.37	0.00
	- end of the season (1 April 2026)	7.48	7.10	-0.38
1.3	Water releases from reservoir	6.78	7.32	0.55
1.4	Flow regulation: recharge (+) or diversion of flow (-)	3.89	4.27	0.37
2	Andijan reservoir			
2.1	Inflow to the reservoir	0.88	0.85	-0.03
2.2	Water volume in the reservoir:			
	- beginning of the season (1 October 2025)	0.79	0.79	0
	- end of the season (1 April 2026)	1.10	1.17	0.07
2.3	Water releases from the reservoir	0.58	0.47	-0.10
2.5	Flow regulation: recharge (+) or diversion of flow (-)	-0.31	-0.38	-0.07
3	Charvak reservoir			
3.1	Inflow to the reservoir	1.07	1.37	0.30
3.2	Water volume in the reservoir:			
	- beginning of the season (1 October 2025)	1.37	1.37	0
	- end of the season (1 April 2026)	0.51	0.65	0.13
3.3	Water releases from the reservoir	1.92	1.97	0.05
3.4	Flow regulation: recharge (+) or diversion of flow (-)	0.85	0.60	-0.24
4	Bakhri Tojik reservoir			
4.1	Water inflow to the reservoir from the river	9.62	10.31	0.68
4.2	Lateral inflow	0.41	0.32	-0.09
4.3	Water volume in the reservoir:			
	- beginning of the season (1 October	1.55	1.55	0.00

№	Balance item	Water volume, km ³		
		Forecast/plan	Actual	Deviation (actual - plan)
	2025)			
	- end of the season (1 April 2026)	3.41	3.40	0.00
4.4	Water releases from the reservoir	7.98	7.96	-0.02
	Including:			
	- water releases into the river	7.87	7.93	0.06
	- water withdrawal from the reservoir	0.11	0.03	-0.08
4.5	Flow regulation: recharge (+) or diversion of flow (-)	-1.75	-2.37	-0.62
5	Shardara reservoir			
5.1	Inflow to the reservoir	9.51	9.69	0.18
5.2	Lateral inflow	0.00	0.00	0.00
5.3	Water volume in the reservoir:			
	- beginning of the season (1 October 2025)	0.43	0.43	0.00
	- end of the season (1 April 2026)	5.22	5.15	-0.07
5.4	Water releases from the reservoir	4.63	4.17	-0.46
	Including:			
	- discharge into Arnasay	0	0	
	- water releases into the river	4.63	4.00	-0.63
	- water withdrawal from the reservoir	0.00	0.17	0.17
5.5	Flow regulation: recharge (+) or diversion of flow (-)	-4.87	-5.68	-0.81
	Total volume of flow regulation by reservoirs: : recharge (+) or diversion of flow (-)	-2.19	-3.57	-1.37

Amu Darya River basin

The actual runoff of the Amu Darya River at the nominal Kerki gauging station (upstream of the Garagum Darya intake) amounted to 11.03 km³, which is 3% above the schedule set by BWO Amu Darya and 78% of the norm (14.2 km³).

Inflow to the Nurek reservoir amounted to 4.04 km³ (104% of the forecast), while water releases totaled 7.43 km³ (98% of the BWO Amu Darya schedule). The increase in river flow due to drawdown of the Nurek reservoir was 3.39 km³. By the end of the season, the reservoir storage level decreased to 6.47 km³ (compared to the planned 6.10 km³).

In the reservoirs of the Tuyamuyun hydroscheme (TMHS), the water accumulation plan was not fulfilled. As of 1 April, the actual storage volume was 0.36 km³ below the planned one and amounted to 3.01 km³ (planned: 3.37 km³). The actual inflow to the reservoir was 6.59 km³, which is 0.07 km³ higher than planned. Water releases from TMHS, including total discharges into the river and water diversions from the run-of-river reservoir of TMHS, amounted to 5.13 km³ (88% of the plan).

Water supply by countries varied from 79% to 91% (Table 2.1). In the upper reaches, available water availability was 84%, including 85% in Tajikistan and 71% in Uzbekistan (Surkhandarya province). In the middle reaches (from the nominal Kerki g/s to the Darganata g/s), available water supply was 94%, including 96% in Turkmenistan and 89% in Uzbekistan. In the lower reaches, this indicator was 69%, including 71% in Turkmenistan and 68% in Uzbekistan.

The established limit for sanitary and environmental flow to canals in the lower reaches of the Amu Darya was utilized at 68%, with a total water supply of 0.54 km³. According to data from Uzhydromet, 1.35 km³ of water reached the Aral Sea region and the Aral Sea, which is 64% of the plan.

Table 2.2 presents data on the river water balance, while Table 2.3 presents data on the reservoir water balance.

Table 2.1

Indicators of water supply for the countries of the Amu Darya River basin during the non-growing season 2025–2026

№	Water user	Water volume, km ³		Available water supply, %
		Limit /scheduling	Actual	season
1	Total water withdrawal	15.86	13.48	85
2	By state:			
	<i>Kyrgyz Republic</i>	-	-	-
	<i>Republic of Tajikistan</i>	3.01	2.58	85
	<i>Turkmenistan</i>	6.50	5.89	91
	<i>Republic of Uzbekistan</i>	6.35	5.01	79
3	Downstream of nominal Kerki g/s	12.48	10.64	85
	<i>Including:</i>			
	<i>Turkmenistan</i>	6.50	5.89	91
	<i>Republic of Uzbekistan</i>	5.98	4.75	79
4	By river reach			
4.1	Upper reaches	3.38	2.84	84
	<i>Including:</i>			
	<i>Kyrgyz Republic</i>	-	-	-
	<i>Republic of Tajikistan</i>	3.01	2.58	85
	<i>Republic of Uzbekistan, Surkhandarya</i>	0.37	0.26	71
4.2	Middle reaches	8.34	7.80	94
	<i>Including:</i>			
	<i>Turkmenistan</i>	5.10	4.903	96
	<i>Republic of Uzbekistan</i>	3.24	2.90	89
4.3	Lower reaches	4.13	2.83	69
	<i>Including:</i>			
	<i>Turkmenistan</i>	1.40	0.988	71
	<i>Republic of Uzbekistan</i>	2.74	1.85	68
5	Sanitary and environmental flow for downstream canals	0.80	0.54	68
	<i>Including:</i>			
	<i>Turkmenistan</i>	0.15	0.12	83
	<i>Republic of Uzbekistan</i>	0.65	0.42	64

№	Water user	Water volume, km ³		Available water supply, %
		Limit /schedule	Actual	season
6	Water supply to the Aral Sea and Aral Sea region	2.10	1.35	64

Table 2.2**River water balance of the Amu Darya River during the non-growing season 2025–2026**

Balance item	Water volume, km ³		Deviation(actual-plan)
	Forecast/ Plan	Actual	
1. Runoff of the Amu Darya River – unregulated flow at the nominal Kerki gauging station.”	10.74	11.03	0.289
2. Flow regulation by the Nurek reservoir: recharge (+) or diversion of flow (-)	3.69	3.39	-0.30
3. Water withdrawal in the middle reaches (-)	-8.34	-7.80	0.54
4. Return flow (CDF) in the middle reaches (+)	0.93	0.50	-0.43
6. River flow at Darganata g/s	6.52	6.59	0.07
7. Water releases from TMHS (including water diversion from the reservoir)	5.84	5.13	-0.72
8. Water withdrawal in the lower reaches, including water diversion from TMHS (-)	-4.13	-2.83	1.30
9. Emergency-environmental flow to canals (-)	-0.80	-0.54	0.26
10. Amu Darya River flow at Samanbay g/s	0.67	0.67	0.00

Table 2.3

**Reservoir water balance in the Amu Darya River basin during the
non-growing season 2025-2026**

Balance item	Water volume, km ³		Deviation (actual- plan)
	Forecast/ plan	Actual	
1 Nurek reservoir			
1.1. Inflow to the reservoir	3.88	4.04	0.16
1.2. Water volume in the reservoir:			
– beginning of the season (1October 2025)	10.51	10.51	0.00
– end of the season (1April 2026)	6.10	6.47	0.37
1.3. Water releases from the reservoir	7.57	7.43	-0.15
1.4. Flow regulation: recharge (+) or diversion of flow (-)	3.69	3.39	-0.30
2 Reservoirs of TMHS			
2.1 River flow at Darganata g/s	6.52	6.59	0.07
2.2. Water volume in the reservoirs:			
– beginning of the season (1 October 2025)	3.60	3.60	0.00
– end of the season (1April 2026)	3.37	3.01	-0.36
2.3. Water releases from the hydroscheme	5.84	5.13	-0.72
Including:			
– water releases into the river	3.92	3.73	-0.19
– water withdrawal	1.92	1.39	-0.53
2.4. Flow regulation: recharge (+) or diversion of flow (-)	-0.68	-2.86	-2.18