

RGE “Kazhydromet”

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**FORECAST OF RIVER RUNOFF IN THE IRRIGATED
ZONE OF KAZAKHSTAN FOR VEGETATION PE-
RIOD 2011**

ALMATY - 2011

FORECAST OF RIVER RUNOFF IN THE IRRIGATED ZONE OF KAZAKHSTAN FOR VEGETATION PERIOD 2011

Southern-Kazakhstan and Kyzylorda regions (SKR)

Water content of most rivers in SKO (Arys, Keles, Aksu, Sayramsu, etc.) in the coming vegetation period (from April to September) is expected 30-40% down from normal and about half that of last year. Greater role in flood of mountain rivers will play precipitation during April-May. Under heavy rains the floods will be formed on the rivers of the region.

The unfavorable situation is forming in the Syrdarya river basin in the Kyrgyzstan and Uzbekistan. Water content in the Kara and Chirchik rivers in spring-summer period is expected to about 20 - 40% down from normal. The water inflow to the Toktogul reservoir on the Naryn river will be near the mean annual. The lateral inflows to the Syrdarya river from Uchkurgan, Uchtepe to Shardara reservoir is expected to be 10-15% down from the normal one. The water content of the rivers in the Syrdarya river basin during April-September is expected to be half as compared with the previous year.

Water content in the Syrdarya river within the South-Kazakhstan and Kyzylorda regions entirely depend on the releases from the Shardara reservoir. In the upcoming vegetation period the inflow to the Shardara reservoir is expected to be in the range of 4-6 km³. In 2010 it was equal to 11 km³.

Zhambylsky region

Water content in the Aspara, Kuragaty, Merka, Karakistak, Shokpak and other rivers in the coming vegetation period is expected to be in the normal range or a little higher. Water content in the Ters and Koktal rivers will be 15-20% down from the average annual value.

Water content in the Shu river is expected to be in the normal range, but down from the last year. Water content in the Talas river (inflow to the Chon-Kapkinsky reservoir) preliminarily is expected to be 20% down from the norm and from 2010.

Almaty region

Water content in most rivers in the south of Almaty region (Ile, Shilik, Talgar, Uzun-Karagaly, etc.) during the vegetation period is expected to be close to normal, and in some rivers (Sharyn, Ulken Almaty, Kurt, Syumbe) - on 20-40% higher.

In Djungarian Alatau Mountains, the conditions for the spring-summer runoff formation are more favorable. Water content in the Karatal, Lepse, Buskan, Tentek and other rivers is expected to be on 15-30% greater than the norm, but less than in the last year. Water content in the Koxsu river is expected within the historical averages, and less than in the last year. During April-May the floods is expected to be on the rivers of the Taldykurgansky region because of intensive snow melting and heavy rains.

Eastern-Kazakhstan region

Water content in the Shar, Karakol, Kusak, Khatyn-su, Urdzhar, Karabuga rivers of the Semipalatinsk region during spring-summer period is expected to be 10-30% down from the norm and significantly less than in 2010. The runoff of the Ulken Boken, Karabutov rivers is expected to be on 10-20% more than the norm.

The water inflow to the Bukhtarminsky reservoir (Bukhtarma, Kurshim, Kara Ertis rivers, etc.) and the lateral inflow to the Shulbinsky reservoir (Oba and Ulba rivers) during the second and 2-4 quarters is expected to be within the norm and generally less than in the past year as a whole:

In spring and summer, during the snowmelt and in the event of heavy rain, the mountain rivers of the south, southeast and east of Kazakhstan is expected to have the high floods, and the landslides and debris flows possibly will occur.

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***The expected runoff in the vegetation period on the rivers of
the irrigated area in Kazakhstan in 2011, m³/s***

| Water body | Point | Probable range of expected values | 2010 | Norm |
|-------------------------|--|---|------|------|
| 1 | 2 | 3 | 4 | 5 |
| Naryn | Inflow to the Toktogul reservoir** | 490-670 | 998 | 605 |
| Karadarya | Inflow to the Andijan reservoir * | 70 – 130 | 406 | 193 |
| Karadarya | Lateral inflow from the Andijan dam to Uchtepe* | 100– 140 | 264 | 163 |
| Syrdarya | Lateral inflow from Uchkurgan, Uchtepe to Kairakkum res. * | 170 – 210 | 256 | 212 |
| Syrdarya | Lateral inflow from Kairakkum res. to Shardara res. * | 140 –200 | 324 | 200 |
| Chichik | Inflow to the Charvak res. * | 220 –300 | 471 | 328 |
| Chichik | Lateral inflow from the Charvak res. to the mouth * | 65 – 85 | 113 | 93.3 |
| Keles | mouth | 8-14 | 26.3 | 16.4 |
| Arys | Arys | 13-27 | 51.3 | 34.0 |
| Zheboglysu | Zheboglysu | 3,0-4,0 | 4.64 | 3.97 |
| Aksu | Sarkyroma | 10-14 | 26.3 | 17.1 |
| Baldybrek | State reserve | 3,0-4,0 | 7.56 | 5.23 |
| Sairam | Tasaryk | 8,0-11 | 16.8 | 13.6 |
| Baralday | Borolday | 5,0-9,0 | 12.9 | 12.3 |
| Kattabugun | Zharykbas | 1,5-2,5 | 2.13 | 3.24 |
| Shayan | Maibulak | 1,0-2,0 | 1.60 | 1.86 |
| Karashik | Khantagi | 0,5-1,5 | - | 1.56 |
| Ortotokoyskoe reservoir | inflow** | 30 – 40 | 60.1 | 33.5 |
| Chonkemin | mouth** | 27 – 33 | 27.8 | 32.9 |
| Talas | 2.6 km downstream near Uch-Koshoy ** | 15 – 23 | 24.4 | 23.1 |
| Kirovskoe reservoir | inflow** | 16 – 24 | 28.8 | 24.8 |
| Urmalar | Oktyabrskoe** | 11 – 15 | 18.1 | 15.1 |

| Water body | Point | Probable range of expected values | 2010 | Norm |
|-------------------------|---|-----------------------------------|------|------|
| 1 | 2 | 3 | 4 | 5 |
| Ters | B- Oktyabrskoe | 3.5 – 5.5 | 5.36 | 5.83 |
| Shokpak | Zykovskoe | 1,1-1,9 | 1.87 | 1.62 |
| Tamdy | Shalaktau | 0.6 – 1.4 | 1.13 | 0.89 |
| Koktal | at the end of mountain area | 0,8 – 1,8 | - | 1.50 |
| Shabakty | at the end of mountain area | 0,5 – 3,5 | - | 2.58 |
| Rgaity | Aktas | 1,2 – 2,0 | - | 1.69 |
| Karakistak | Kamenka | 2,3 – 3,3 | - | 2.82 |
| Merke | Ulbutuy | 5,5 – 6,5 | 4.90 | 5.29 |
| Aspara | at the end of mountain area | 4.5 – 5.5 | - | 5.25 |
| Kuragaty | Aspara | 3,0 – 6,0 | 4.36 | 3.82 |
| Shungur | Downstream mouth of the Karabulak river | 0,55 – 0,85 | - | 0.91 |
| Kapshagaiskoe reservoir | inflow | 630 – 730 | 974 | 628 |
| Borokhudzir | Kiytyn | 2 – 3 | - | 2.51 |
| Syumbe | Syumbe | 2.5 – 3.5 | - | 2.13 |
| Osek | Taldy | 19 – 25 | - | 29.8 |
| Bestyubinskoe reservoir | inflow | 36 – 44 | - | 38.2 |
| Sharyn | Sarytogoy | 60 – 70 | 92.6 | 49.9 |
| Bartogaiskoe reservoir | inflow | 47 – 53 | - | 48.2 |
| Turgen | Tauturgen | 10 – 12 | 17.3 | 10.8 |
| Kaskelen | Kaskelen | 6.0 – 7.0 | 7.21 | 6.24 |
| Talgar | Talgar | 14 – 16 | 19.1 | 15.4 |
| Ulken Almaty | 2 km higher than the lake | 3.0 – 3.4 | 4.26 | 2.28 |
| Prokhodnaya | mouth | 1.9 – 2.3 | 3.07 | 2.22 |
| Kishi Almaty | Almaty | 2.9 – 3.5 | 3.83 | 3.07 |
| Kurtinskoe reservoir | inflow | 2 – 3 | 4.75 | 1.97 |
| Uzunkargaly | Fabrichny | 4.5 – 5.5 | - | 4.66 |
| Koksu | Koksu | 55-75 | 105 | 63.8 |
| Koktal | Araltyube | 12-16 | 22.4 | 14.5 |
| Karatal | Karatalskoe | 47-55 | 86.0 | 40.8 |

| Water body | Point | Probable range of expected values | 2010 | Norm |
|--------------------------|------------------------------|-----------------------------------|------|------|
| 1 | 2 | 3 | 4 | 5 |
| Karaoy | Tekeli | 21-27 | 35,9 | 20.6 |
| Shyzhin | Tekeli | 20-26 | 44.3 | 20.8 |
| Tekeli | Tekeli | 3,1-4,5 | 5.80 | 3.58 |
| Sarykan | Sarkand | 11-13 | 17.1 | 10.5 |
| Lepsi | Lepsi | 36-44 | 53.2 | 32.2 |
| Baskan | Ekiasha | 19-23 | 33.8 | 16.1 |
| Tentek | Tonkeris | 80-100 | 104 | 79.4 |
| Sharskoe reservoir | inflow | 5 – 9 | 14.5 | 8.01 |
| Shigilek | Shigilek | 1.5 – 2.5 | - | 2.61 |
| Ulken Boken | Djumba | 13-17 | 23.8 | 12.5 |
| Karakol | Taskesken | 2,5-6,5 | - | 8.33 |
| Khatynsu | Kyzyljulduz | 4.5 – 7.5 | - | 7.54 |
| Kokterek | Novopyatigorskoe | 2,0-4,0 | - | 4.04 |
| Urdjar | Alekseevka | 2,5-3,5 | - | 3.50 |
| Eginsu | Point № 6 | 1,5-2,5 | - | 3.94 |
| Kusak | Irinovka | 5,5-8,5 | - | 8.63 |
| Tebezge | Point № 3 | 1,5-2,5 | - | 2.95 |
| Karabuga | Aksuat | 5,0-7,0 | - | 7.69 |
| Karabuga | Karabuta | 3,0 – 5,0 | - | 3.69 |
| Bukhtarminskoe reservoir | inflow (2 quarter) | 1200-1600 | 2140 | 1500 |
| Bukhtarminskoe reservoir | inflow (2-4 quarter) | 660-860 | 1060 | 796 |
| Shulbinskoe reservoir | Lateral inflow (2 quarter) | 620-820 | 821 | 785 |
| Shulbinskoe reservoir | Lateral inflow (2-4 quarter) | 300 – 400 | 333 | 359 |
| Kapshagaiskoe reservoir | inflow (2 quarter) | 500 – 580 | 940 | 549 |
| Kapshagaiskoe reservoir | inflow (2-4 quarter) | 490 – 570 | 818 | 542 |

Note: * - Forecasts are implemented in the UzHYDROMET,
** - Forecasts are implemented in the KyrgyzHYDROMET;

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