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IMPROVING THE OPERATION OF THE "MULKUSH" IRRIGATION CANAL NAMED "SHODI MUSULMANOV" IN GALLAOROL DISTRICT, JIZZAK REGION

Annotation: *This article contains suggestions and recommendations for improving the conditions of use of the "Shodi Musulmanov" channel. Currently, there are 4.3 million hectares of irrigated land in our republic. Supplying water to these irrigated lands without wastage is an urgent problem.*

Key words: *irrigation canal, water consumption. hydraulic calculations.*

The "Mulkush" canal named after "Shodi Musulmanov" was commissioned in 1961, the total length of the canal is 32.64 km.

Water is taken from the Tuyatortar canal

The main task is watering.

The area where the facility is located: Gallaorol district

Water transfer capacity of the facility: Q=6.0 m³/sec.

Capital category of the object: class IV.

There are 43 hydrotechnical facilities in the facility.

The irrigated area is 5375.0 hectares.

General information about "Mulkush" channel named after "Shodi Musulmanov".

It borders with Farish district from the north, Jizzakh district from the east, Bakhmal district from the south, and Bulungur districts of Samarkand

region from the west. Water from Tuyatortar QLI reaches the Mulkush canal named after Shodi Musulmanov and supplies water to the areas of Moltob, Mulkush, Tozaurug Neighborhood Citizens' Assembly, Chuvuldok, Tozaurug, Yangikishloq, Mullabuloq, Uymovut, Lalmikor, Lopoq, Kokdala villages.

The water intake of the canal is planned to be 6 m^3/s, and due to the correct use of the structure and the canal over the years and timely repair and restoration works, the structure can now carry 2.5 m^3/s of water. Due to the lack of timely repair and restoration of hydrotechnical structures in the canal, these hydrotechnical structures are now transferring water up to 2.5 m^3/s instead of 6 m^3/s."Shodi "Mulkush" canal hydraulic calculations named after "Musulmanov".

To determine these, the performance characteristics of each channel, i.e. the functional connection curve Qi = f (hi) are plotted.

The calculation is done as follows:

We can determine the accelerated water consumption for the Mulkush canal according to the following formula.

$$Q_{acc} = k_{acc} * Q_{nor}$$

$$Q_{acc} = 6 \cdot 1{,}15 = 6{,}9 \ m^3/s$$

In this formula

Q_{acc}-is the accelerated water consumption of the considered channel,

Q_{nor}-is the normal water consumption of the considered channel,

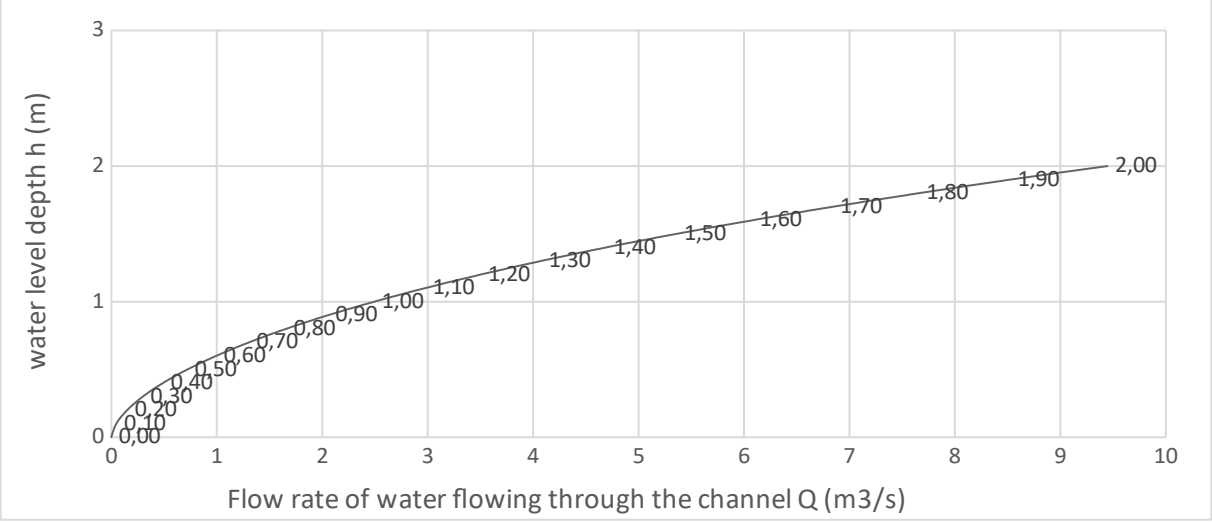
k_{acc}- is the acceleration coefficient,

Table 1. Calculation of the hydraulic elements of the Mulkush canal when it has a soil bed.

№	h	b	m	*w*	*x*	*R*	*n*	*C*	*i*	*v*	Q
1	0	4	1,8	0,00	4,00	0,00	0,022	0,00	0,00014	0,00	0,000
2	0,1			0,42	4,41	0,09		30,69		0,11	0,047
3	0,2			0,87	4,82	0,18		34,18		0,17	0,150
4	0,3			1,36	5,24	0,26		36,32		0,22	0,299

5	0,4			1,89	5,65	0,33		37,87		0,26	0,489
6	0,5			2,45	6,06	0,40		39,09		0,29	0,721
7	0,6			3,05	6,47	0,47		40,09		0,33	0,992
8	0,7			3,68	6,88	0,53		40,95		0,35	1,305
9	0,8			4,35	7,29	0,60		41,71		0,38	1,659
10	0,9			5,06	7,71	0,66		42,37		0,41	2,054
11	1			5,80	8,12	0,71		42,98		0,43	2,493
12	1,1			6,58	8,53	0,77		43,53		0,45	2,975
13	1,2			7,39	8,94	0,83		44,04		0,47	3,502
14	1,3			8,24	9,35	0,88		44,51		0,49	4,074
15	1,4			9,13	9,77	0,93		44,95		0,51	4,693
16	1,5			10,05	10,18	0,99		45,36		0,53	5,360
17	1,6			11,01	10,59	1,04		45,75		0,55	6,075
18	1,7			12,00	11,00	1,09		46,12		0,57	6,841
19	1,8			13,03	11,41	1,14		46,47		0,59	7,657
20	1,9			14,10	11,82	1,19		46,81		0,60	8,525

Figure 1. Calculation of the hydraulic elements of the Mulkush canal when it has a soil bed.



Information about facilities receiving water from "Mulkush" canal named after "Shodi Musulmanov".

Figure 2. Location of Mulkush from google maps.

Figure 3. Beginning of Mulkush Channel: a-Mulkush canal water intake point, b-Tuyatatortar control channel water intake point.

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