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NATIONAL REPORT WATER QUALITY STANDARDS AND NORMS IN THE REPUBLIC OF UZBEKISTAN

National experts:

Zulfiya Yarullina,

Gulshen Bensitova,

Mamanazarov Muhammad, consultant

State Committee of the Republic of Uzbekistan

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LIST OF ACRONYMS

BC	Building code
CA	Central Asia
CDD	Collector-drainage dump
CDW	Collector-drainage waters
Cube km	Cubic kilometre
DGP	Dangerous geological processes
E	Environment
EN	European standard
ICSD	Interstate Commission for Sustainable Development
ICWC	Interstate Commission for Water Coordination
IFAS	International Fund for the Aral Sea
MAWM	Ministry of Agriculture and Water Management
MPC	Maximum permissible concentration
MPD	Maximum permissible disposal
NEM	National Environmental Monitoring
PS	Polluting substance (substances)
SC	Sanitary code
SCO	Shanghai Cooperation Organisation
SMUPWR	Scheme of multiple use and protection of water resources
Sq. km	Square kilometre
TS	Technical specifications
UNECE	United Nations Economic Commission for Europe
Uz	Republic of Uzbekistan
WB	Water body
WF	Water fund
WPI	Water purity index

INTRODUCTION

The most pressing environmental problem in Central Asia is the problem of use and protection of water resources. In the region water has always been the most valuable natural resource which was protected and glorified by the people. As the President said, in arid zones water is an invaluable gift of the nature, and life here is connected with water: where there is no water, there is no life, and in Central Asia water resources are scarce¹.

The arid climate of Central Asia makes water resources the key factor in keeping sustainable natural balance in ecosystems and ensuring social and economic development of the larger part of the region. A most urgent environmental problem is the issue of fresh water supply. There is a steady decrease in the amount of available pure water in the region due to extensive exploitation and natural factors.

Scantiness of water resources has become the main problem and safety issue for the whole region of Central Asia (CA).

For Uzbekistan water is the priority and vital resource that has always been the source of living and economic development of the society. Water resources supply in Uzbekistan is affected by most adverse environment. The Central Asia hydrographical network has a non-uniform distribution of water bodies. The rivers Amu Darya and Syr-Darya are the main sources of runoff in the Republic of Uzbekistan, with the total average long-term runoff reaching 115.6 km³ (27.73 mi³).

Uzbek water resources are the part of shared water resources of the Aral Sea basin. Surface water resources of Uzbekistan are formed with waters flowing into the rivers from the mountain areas of the neighbouring states and resources formed on its territory. Besides, a part of river runoff arrives through channels. Waters of lakes and glaciers also contribute to the internal water resources of Uzbekistan.

Water resources of the Aral Sea Basin are shared by the states situated within the basin, which defines their transboundary nature.

Consequently, the following requirements should become the priority for the decision-makers, and the public as a whole: observance of ecological exploitation of watercourses that could secure their sustainability or ability for self-cleaning; upkeep of flood discharges and admissible quality of river water; observance of sanitary discharges to thin harmful components; satisfaction of needs of river deltas, etc. Observance of ecological requirements to water would also mean protection of aquatic ecosystems with rare endemic types, valuable biodiversity, picturesque landscape, special public value and aesthetic

1 I.Karimov, Uzbekistan on the threshold of the XXI century. Tashkent, «Uzbekistan», 1997.

qualities. It is important that both small and big rivers have a chance to preserve not only their natural flora and fauna, but also their primeval beauty.

The project aims at reviewing and analysing the relevant legislative basis, institutional structure of water quality management in the Republic of Uzbekistan; developing the national intersectoral basis for international agreements on harmonisation of water quality norms and standards; approaching the water quality standards with the European standards (ENs) on the integral indices of pollution and control.

The report analyses thematic issues that disclose institutional and legal mechanisms applied in protection and use of water resources. The document refers to the printed materials of *UzHydroMet*, *Ministry of Agriculture and Water Management*, *Ministry of Health Protection*. The assistance of experts of the above-stated ministries and departments in preparation of the project and provision of data is kindly acknowledged.

1. HYDROGEOGRAPHIC CONTEXT

1.1. WATER RESOURCES OF THE COUNTRY

The Republic of Uzbekistan is located in the interfluvium of Amu-Darya and Syr-Darya, in the central part of the Eurasian continent, 37-45°N, 56-73°E, in the subtropical zone of the northern hemisphere. The total area 448,900 sq.km (172,742 sq.mi). It stretches 1,400 kilometers (885 mi) from west to east and 925 kilometers (578 mi) from north to south.

There are three primary climatic zones in Uzbekistan: deserts and dry steppes, foothills and mountains. The runoff formation zone in the Republic of Uzbekistan falls to the mountain-fed rivers. Considerable down-dip diversion within the mountain zone causes an ecocline, which naturally stimulates a more plentiful development of aquatic biota during the vegetative period and an increase in the trophic level on the lower levels of the rivers.

Main water bodies fall to the plain territories and are concentrated in the three landlocked ditches: Sarykamysh (42 sq. km [10 sq. mi]), Arnasay (42.1 sq. km [16.25 sq. mi]), Dengizkul (2.73 sq. km [1.05 sq. mi]).

Surface water resources of Uzbekistan are formed with waters flowing into the rivers from the mountain areas of the neighbouring states and resources formed on its territory. Besides, a part of river runoff arrives through channels. Waters of lakes and groundwater also contribute to the internal water resources of Uzbekistan (63,986,530 m³/day). Pursuant to the principles of water division, which had undergone practically no alteration since the collapse of the Soviet Union, the total design volume of water resources for use across Uzbekistan is estimated 67.0 km³ (16.07 mi³), including surface waters – 55.1 km³ (13.22

mi³); groundwater – 7.8 km³ (1.9 mi³); and reuse of return waters – 4.1 km³ (0.98 mi³).

The factor hindering sustainable development of economy in Uzbekistan which is located in the arid zone is scarcity of water resources.

River runoff formation and distribution within the territory of Uzbekistan is closely connected with the climatic factors, and first of all, with atmospheric precipitation. Humidification of the territory with atmospheric precipitation is highly non-uniform, which is caused by its geographic position, structure, exposition of mountain ridge slopes and a number of other factors. The least amount of rainfall (less than 100 mm a year) occurs in the northwest flat part of the country (lower reaches of the Amu Darya, western Kyzyl-Kum, south of the Karakalpak Ustyurt). To the east and southeast from this most arid region of Uzbekistan, closer to mountain ridges the rainfall gradually increases, reaching the level of 1,000 mm and more in a high-mountain zone. The highest annual rainfall occurs in the high-mountain part of the Chirchik, Akhangaran, Kashkadarya and Surkhandarya river basins.

The rivers of Uzbekistan belong to the Aral Sea basin. Only a small part of runoff flowing in the country is formed within its territory. Syr-Darya and Amu Darya, the lifeblood of Uzbekistan, originate without the territory of the country.

The mountain part is rich with rivers. The largest rivers of the country are Chirchik, Akhangaran, Kasansai, Naryn, Kara-Darya, Isfairsai, Sokh, Isfara, Sangzor, Zeravshan, Kashka-Darya, Sherabad, Surkhan-Darya. Most of them run across Uzbekistan only within their middle and downstream. The Syr-Darya River runs in the territory of Uzbekistan in the Fergana valley, and then leaves the territory of the country to come back in the strip from the city of Bekabad to China. The most water-bearing river – Amu Darya in its upstream flows along the state border with Afghanistan (within the Surkhan-Darya area), where its right tributaries – Surkhan-Darya and Sherabad outflow. Then it leaves the territory of the country to come back in its downstream, in the area below the Turkmen settlement Uchkorson. In its lower reach the Amu Darya irrigates the lands of the Khorezm region and the Republic of Karakalpakstan.

Uzbek rivers runoff is formed with seasonal snowpack melting. Melted snow, high-mountain snowfields and glaciers, and, to a lesser degree, rainwater contribute to the feeding of the rivers. Depending on the share of a particular type of waters forming the runoff, the rivers are divided into glacial-fed (Sokh, Isfara, Isfairsai), snow-glacial-fed (Zeravshan, Tupalang-Darya), snow-fed (Pskem) and snow-rain-fed (Akhangaran, Kashka-Darya).

Lakes in the mountain territory are few, extremely non-uniformly distributed and never big in size. Most mountain lakes are situated at the height of 2,000-3,000 m. Natural floodplain and delta lakes are located in the valleys of the local rivers. Mountain lakes are usually of a slide-rock or moraine-glacial origin, with

water pondage nearing 50 km³. There can hardly be counted more than 500 lakes in Uzbekistan, basically all being small water bodies with the area of less than 1 km² and 32 lakes with the area of more than 10 km².

Wetlands are located in the watersheds of large rivers, in the rim of talus train and in relief recede. It is often difficult to differentiate between marshes and lakes as during the dry season some lakes turn into wetlands. The sizes of wetlands vary from square metres to a few hundred square kilometres. There are much fewer wetlands in the mountain regions, and their size is usually insignificant. They are mostly presented by the groundwater pinch (local name sazy).

An important role in maintaining the vital functions of water and aquatic ecosystems in the territory of Uzbekistan is played by collector drainage dumps (CDD) and waste waters. Their total formation volume in the country reaches 20.1 km³ a year. Average long-term river runoff resources in the Syr-Darya basin reaches 38.8 km³ a year, with average long-term in Uzbekistan being 5.59 km³ a year (14.4 %). Average long-term river runoff resources in the Amu Darya basin surpass 78 km³ a year, of which 4.7 km³ (6 %) is a share of Uzbekistan.

At present the country exploits 55 water storage basins, mostly of irrigational purpose. Their total design volume makes 19.8 km³, conservation zone – 14.8 km³. The largest are Tyuyamuyun, Charvak, Tudakul, Kattakurgan. The largest water storage basins of Uzbekistan are used comprehensively, and intended mostly for the irrigation, power supply and industrial purposes.

There are 95 groundwater deposits in the territory of Uzbekistan. As of 01.01.2010 the total natural resources of fresh and brackish groundwater in the Republic of Uzbekistan make 75,580,560 m³/day (874.8 m³/sec). This includes groundwater with mineralization up to 1 gr/L (25,822,050 m³/day – 40.4%), 1-1.5 gr/L (8,411,640 m³/day – 13.1), 1.5-3 (22,097,660 m³/day – 34.5%), 3-5.0 (4,486,890 m³/day – 7%), and more than 5 gr/L (3,168,290 m³/day – 4.9%).

There were also accounted 123 proven territories (197 sites) of mineral groundwater, of which 85 deposits have confirmed useful ground water reserves of 37,539,000 m³/day.

2. WATER RESOURCES MANAGEMENT

2.1. LEGISLATIVE FRAMEWORK

The Law of the Republic of Uzbekistan on water and water use (1993) is based on the Constitution of the Republic of Uzbekistan, the Law of the Republic of Uzbekistan on nature protection (1992), and other regulatory legal acts. Land, subsoil, water, flora and fauna, and other natural resources are national riches, which are subject to efficient exploitation and protected by the state.

In this respect the aims of Uz water legislation is maintaining proper conditions for water and water bodies exploitation, securing necessary quantity of water in the natural turnover, ensuring its standard cleanliness, preservation of water flora and fauna, non-admission of water bodies pollution, maintenance of eco-balance and abstinence from causing damage to a water body as a landscape element.

In order to achieve and maintain environmentally safe and economically opportune levels of water use and water fund protection with the aim of preserving and improving the living conditions of the population and the environment, there have been stipulated certain conditions for locating, designing, building, reconstructing, repairing, restoring and putting into operation new companies, constructions and other objects, as well as for introducing new technological processes which could impact the state of waters and water bodies.

Engineering and reconstruction designs of companies, constructions and other objects that could impact the state of waters and water bodies should be made with account for water bodies exploitation possibilities for recreational and sports facilities.

Another aim of water resources management is the issue of controlling the use of transboundary water bodies (the rivers Amu Darya, Syr-Darya, Zarafshan, the Aral Sea and other transboundary water bodies), located in the territory of Uzbekistan and other countries of the Aral Sea basin pursuant to the international agreements of the Republic of Uzbekistan².

The water legislation is implemented through a number of statutory acts, including the Decision of the Cabinet of Ministers of the Republic of Uzbekistan «*On adoption of the regulations on sanitary protection zones...*» (1992) which regulates the order of establishing sanitary protection zones and water bodies sanitary protection zones (districts), and conditions of economic activity in these zones in order to prevent pollution, contamination and depletion of water resources.

The issue of water protection has been reflected in such acts as the *Land Code* (1998) and «*On protected natural territories*» (2004) which define the notion of water fund lands and conditions for exploitation of sanitary protection zones, coastal strips and water bodies sanitary protection zones. Thus, the water fund lands include land under water bodies (rivers, lakes, water storage basins, etc.), hydrotechnical and other water management constructions, and also right-of-ways on the banks of watercourses and other water bodies officially leased to the companies, businesses and organisations for their water management needs.

Pursuant to the legislation any economic and construction activity on water fund lands which might have a negative impact on water bodies is forbidden.

2 Law on water and water use.

Sanitary protection zones include protected natural territories adjoining river channels, lakes, water storage basins, channels, collectors and other water bodies. These zones are formed with a view of preventing pollution, contamination, depletion and sedimentation of water bodies with the products of soil erosion, and maintaining a favourable water regime.

Coastal strips are protected natural territories within a sanitary zone of strict protection regime.

Water body sanitary protection zones are protected natural territories of strict regime that adjoin water bodies used for drinking, household, and medical and health needs.

Surface and groundwater formation zones are protected natural territories within river valleys, talus trains, foothill trails.

Sanitary protection zones, coastal strips, water body sanitary protection zones and the surface and groundwater formation zones are established by decisions of the Cabinet of Ministers of the Republic of Uzbekistan and locally by public authorities upon presentation of relevant agencies for nature protection, agriculture and water management, sanitary inspection, and geological organisations.

The primary tasks of water legislation include provision of efficient use of water resources by the population and economic sectors; water pollution, contamination and depletion control; prevention and mitigation of harmful impact of water; improvement of water bodies' condition, and protection of rights and legitimate interests of companies, businesses and organisations, farmers, peasants and the population in the sphere of water relations.

All waters (water bodies) are subject for protection from pollution, contamination and depletion which can affect the human health, and entail reduction of fish, deterioration of water supply conditions and other adverse phenomena due to change of physical, chemical, biological properties of waters, decrease in their natural purification capacity, violation of hydrological and hydro-geological regimes.

THE COMPETENCE OF STATE WATER RESOURCES AGENCIES

Water resources state management is carried out by the Cabinet of Ministers of the Republic of Uzbekistan, local authorities, and ad-hoc state run public authorities on water use control directly or through basin (territorial) managements and other state agencies.

Ad-hoc state run public water use control authorities are the Ministry of Agriculture and Water Management of Uzbekistan (surface waters), the State Committee for Geology and Mineral Resources of the Republic of Uzbekistan (groundwater) and the State Inspection for Supervision of Geological Study of Subsoil, Safe Work in Industry and Mining at the Cabinet of Ministers of the Republic of Uzbekistan (thermal and mineral waters) within their competence.

The task of the state water use and protection control is to ensure observance by all the ministries, state committees, departments, companies, establishments, organisations, farmers, peasants and the population, of the established order of water use, execution of water protection commitments, preventive and mitigation measures, water accounting regulations, and other regulations of the water legislation.

The state water use and protection control is executed by local authorities, the State Committee for Nature Protection of the Republic of Uzbekistan, the State Inspection for Supervision of Geological Study of Subsoil, Safe Work in Industry and Mining at the Cabinet of Ministers of the Republic of Uzbekistan, the Ministry of Public Health of the Republic of Uzbekistan, the Ministry of Agriculture and Water Management of Uzbekistan as established by the legislation. Departmental water management is carried out by the agencies of the State Committee for Geology and Mineral Resources of the Republic of Uzbekistan.

Pursuant to the Regulations the primary goals of the State Committee for Nature Protection of the Republic of Uzbekistan (GosComPriroda) are as follows:

- To ensure implementation of the uniform state policy in the sphere of environmental safety, environment protection, use and recreation of natural resources;
- To organise and execute the state control over environment protection, use and recreation of natural resources.

In order to reach the assigned goals GosComPriroda fulfils the following functions:

- In accordance with the established procedure issues dumping permits, special water use licenses, water well drilling permits, rights to use the subsoil to bury harmful substances, including wastes;
- Coordinates subsoil and water monitoring, administers analytical pollution control;
- File the state cadastre of protected natural territories;
- Ensures environment quality standardization, sets and brings down the pollutants disposal norms in the Uzbek territory;
- Develops the environmental monitoring structure, content and procedure, together with the state agencies and other stakeholders forms and administers a uniform national informational eco-databank on the level of pollution and other adverse impacts on the environment resulting from the exploitation of natural resources;
- In accordance with the legal procedure ensures observance of the pollutants disposal norms, and implementation of coordinated measures to achieve these norms; execution of environment protection programmes and projects; multiple use, preservation and recreation of natural resources; the primary account of the use of natural resources, pollutants disposal and other adverse environmental impacts (except

physical) by the users of natural resources; together with the statistical agencies ensures the reliability of the national statistical data on the environment protection and the use of natural resources; the use of water resources; compliance with the norms and rules of water use; protection of surface and groundwater from pollution, contamination and depletion; and implementation of water protection measures in coastal strips and riparian zones of water bodies; securing protection of valuable natural landscapes, water protection and water regulating, field protection and other protective functions of afforestation; and the use, preservation, protection and recreation of woods; compliance with the legislation in the process of exploitation of small-size ships on the water bodies of Uzbekistan; administration and maintenance of the protected natural territory regime.

The Competence of State Water Resources Agencies

Title of the State Agency, or Organisation. Administration. Level, subordination.	Activity
<p>Regulations on the State Committee for Nature Protection of the Republic of Uzbekistan ratified by the Senate of the Republic of Uzbekistan (Oljy Majlis)</p>	<p>The state control in the sphere of nature protection is executed by the state run public authorities, competent state agencies for nature protection.</p> <p>Competent nature protection authorities include:</p> <ul style="list-style-type: none"> • The State Committee for Nature Protection of the Republic of Uzbekistan; • The Ministry of Public Health of the Republic of Uzbekistan; • The State Inspection for Supervision of Geological Study of Subsoil, Safe Work in Industry and Mining at the Cabinet of the Republic of Uzbekistan; • The Ministry of Internal Affairs of the Republic of Uzbekistan; • The Ministry of Agriculture and Water Management of Uzbekistan; • The State Committee for Land Resources, Geodesy, Cartography and State Cadastre of the Republic of Uzbekistan. <p>In accordance with the established procedure the competent nature protection authorities can involve departmental ecological services in administering national nature protection actions.</p> <p>The Law of the Republic of Uzbekistan on Water and Water Use</p>

	<p>Article 2. Water Legislation</p> <p>Water relations in the Republic of Uzbekistan are regulated by this Law and other related legislative acts.</p> <p>Water relations in the Republic of Karakalpakstan are equally regulated by the legislation of the Republic of Karakalpakstan as well.</p> <p>Article 4. State Unified Water Fund</p> <p>The state unified water fund of Uzbekistan includes:</p> <ul style="list-style-type: none"> • rivers, lakes, water storage basins, other surface water bodies and water sources, waters of channels and ponds; • groundwater and glaciers. • The right to use the waters of the interstate rivers Amu Darya, • Syr Darya, Zarafshan, the Aral Sea and other waters is established by interstate agreements. <p>Article 8. Water resources state management</p> <p>Water resources state management is executed by the Cabinet of Ministers of the Republic of Uzbekistan, local governing bodies, and competent state water management agencies directly or through basin (territorial) managements and other state agencies.</p> <p>Competent state water management agencies are the Ministry of Agriculture and Water Management of Uzbekistan (surface waters), the State Committee for Geology and Mineral Resources of the Republic of Uzbekistan (groundwater) and the State Inspection for Supervision of Geological Study of Subsoil, Safe Work in Industry and Mining at the Cabinet of Ministers of the Republic of Uzbekistan (thermal and mineral waters) within their competence.</p>
<p>The Parliament (Oliy Majlis)</p>	<p>The Law of the Republic of Uzbekistan on Water and Water Use</p> <p>Article 5.</p> <p>Competences in the sphere of water relations regulation:</p> <ul style="list-style-type: none"> • enactment of water legislative acts, and amendments and addendums relating thereto; • definition of the state water resources use and protection policy orientation and adoption of the strategic national water programmes; • administration of other issues within the competence of the Oliy Majlis.

<p>The Cabinet of Ministers of the Republic of Uzbekistan</p>	<p>The Law of the Republic of Uzbekistan on Water and Water Use</p> <p>Article 6.</p> <p>Competences in the sphere of water relations regulation:</p> <ul style="list-style-type: none"> • implementation of a unified policy of water resources rational and multipurpose use, and protection; • coordination of ministries, departments and juridical persons' activities relating to the multipurpose use and protection of water resources; • setting an institutional basis for the creation and use of the water fund, approval of water use standards and norms; • ensuring administration of the state water accounting, use and protection, administering the state water cadastre and water monitoring; • working out preventive and disaster response measures, i.e. aftermaths of major accidents, disasters, natural hazards and water hazards; • creating the system of payments for water resources, indemnification of environment pollution and depletion of water bodies; • development of interstate relations; • implementation of other measures stipulated by the legislation.
<p>Local governing bodies</p>	<p>The Law of the Republic of Uzbekistan on Water and Water Use</p> <p>Article 7. Competences of the local governing bodies in the sphere of water relations regulation:</p> <ul style="list-style-type: none"> • prioritizing directions of water resources use and protection within their administrative territories; • enforcing law and order in the sphere of water resources use and protection; • water bodies monitoring and assessment, water use and protection control, ensuring compliance with the set norms of water consumption, administering water use accounting done by water users; • implementing preservation and enhancement activities on various water bodies, executing preventive and disaster response measures to mitigate negative impact and water pollution, restoring objects damaged as a result of accidents, floods, mudflows and natural disasters;

	<ul style="list-style-type: none"> • regulation of other issues stipulated by the legislation.
<p>The Ministry of Agriculture and Water Management of Uzbekistan</p>	<p>The Law of the Republic of Uzbekistan on Water and Water Use</p> <p>Article 9. The State Water Use and Protection Control</p> <p>The task of the state water use and protection control is to ensure observance by all ministries, state committees, departments, companies, establishments, organisations of all forms of property, farmers, peasants and the population, of the current water regulations, their water protection commitments and obligations to undertake due preventive and mitigation measures, follow water accounting regulations, and other regulations of the water legislation.</p> <p>The state water use and protection control (surface waters).</p>
<p>The State Inspection for Supervision of Geological Study of Subsoil, Safe Work in Industry and Mining at the Cabinet of Ministers of the Republic of Uzbekistan</p>	<p>The Law of the Republic of Uzbekistan on Water and Water Use</p> <p>Article 9. The State Water Use and Protection Control</p> <p>The task of the state water use and protection control is to ensure observance by all ministries, state committees, departments, companies, establishments, organisations of all forms of property, farmers, peasants and the population, of the current water regulations, their water protection commitments and obligations to undertake due preventive and mitigation measures, follow water accounting regulations, and other regulations of the water legislation.</p> <p>The state water use and protection control (thermal and mineral waters) within their competence.</p>
<p>The Ministry of Public Health of the Republic of Uzbekistan</p>	<p>The Law of the Republic of Uzbekistan on Water and Water Use</p> <p>Article 9. The State Water Use and Protection Control</p> <p>The task of the state water use and protection control is to ensure observance by all ministries, state committees, departments, companies, establishments, organisations of all forms of property, farmers, peasants and the population, of the current water regulations, their water protection commitments and obligations to undertake due preventive and mitigation measures, follow water accounting regulations, and other regulations of the water legislation.</p> <p>The departmental water management (groundwater).</p>

In 2009 country adopted the Law № 3PY-240 on introducing amendments and addenda to some legislative acts of the Republic of Uzbekistan in connection with deepening of economic reforms in agriculture and water management, dated December 25, 2009. The Law brought in a number of amendments and addenda in the Uz Law on Water and Water Use, including issues of public participation, i.e. water users' associations, other non-governmental non-commercial organisations, and the general public in implementation of actions on efficient use and protection of water and water bodies.

2.2. INTERNATIONAL COOPERATION

The majority of environmental problems in Uzbekistan have a transboundary character. Water famine is one of such problems which require a joint effort of all the countries of CA. The key role in this respect is given to such transboundary conventions of the United Nations Economic Commission for Europe (UNECE) as the Convention on Long-Range Transboundary Air Pollution, the Convention on the Transboundary Effects of Industrial Accidents, the Convention on Environmental Impact Assessment in a Transboundary Context, the Convention on the Protection and Use of Transboundary Watercourses and International Lakes.

Consequently, the use of transboundary watercourses (Amu Darya, Syr-Darya, Zarafshan, Aral Sea and other transboundary water bodies) located in the territory of Uzbekistan and other countries of the Aral Sea basin is managed pursuant to the international agreements of the Republic of Uzbekistan.

Water use and water consumption, water management and water protection activities on such transboundary water bodies is executed pursuant to the international agreements of the Republic of Uzbekistan.

Wherever water use or water consumption regarding transboundary water bodies of Uzbekistan is not stipulated by the international agreements, it is executed in accordance with the Uzbek legislation.

In 2007 Uzbekistan ratified the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, March 17, 1992) and the Convention on the Law of Non-Navigational Uses of International Watercourses (New York, May 21, 1997).

Within the Shanghai Organization of Cooperation (SCO) which unites China, Russia, Uzbekistan, Kazakhstan, Kyrgyzstan and Tajikistan, the countries are preparing the draft Concept of cooperation between SCO member states in the sphere of environment protection.

The countries of the Central Asia concluded the first multilateral agreement on transboundary waters in the CA region – Agreement between Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan and Turkmenistan on Cooperation in the sphere of unified management of shared water resources use and protection,

dated February 18, 1992. The countries of the Aral Sea Basin created unified regional organizations: International Fund for the Aral Sea (IFAS) and its sub-structures, i.e. Interstate Commission for Water Coordination (ICWC) of Central Asia and Interstate Commission for Sustainable Development (ICSD) with its branches working in all the countries of the region.

The Agreement of 1992 between the Central Asia countries had then secured observance of the water distribution principles and practice in the Amu-Darya and Syr-Darya watersheds pursuant to the criteria and volumes stipulated by the schemes of multiple use and protection of water resources (SMUPWR) in the Amu-Darya and Syr-Darya basins adopted during the Soviet period.

Tabl. 1

**Bilateral and Multilateral Agreements
in the sphere of Transboundary Watercourses in the CA region
with the participation of Uz**

№	Title	Countries which signed the agreements and/or are the parties
1	Agreement between Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan and Turkmenistan on Cooperation in the sphere of unified management of shared water resources use and protection	Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, Turkmenistan
2	Charter of Basin Water Association «Amu-Darya»	Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, Turkmenistan
3	Charter of Basin Water Association «Syr-Darya»	Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, Turkmenistan
4	Decision of Heads of the Central Asian countries on the Priority directions of the Specific Acts Programme to improve the ecological, and social and economic situation in the Aral Sea basin for 2003-2010	Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, Turkmenistan

The ICWC and its executive bodies implement a complex of measures and procedures that ensure equal distribution of water along the shared watercourses with the account of needs of the ecosystems and their future development. The executive and operational bodies of the Commission are the Basin Water Associations (BWA) «Amu-Darya» and «Syr-Darya». In 1998 an Agreement was signed on the use of hydropower resources of the Syr-Darya river basin (Kazakhstan, Kyrgyzstan, Uzbekistan), which was later ratified by Tajikistan. At present there are being developed a number of multilateral agreements. In 2003 there was worked out a strategy of rational and efficient use of water and energy resources of the region within the framework of the UNECE Special Programme for the Economies of Central Asia (SPECA).

2.3. INSTITUTIONAL MANAGEMENT PRINCIPLES, STATE AGENCIES AND ORGANIZATIONS

The competence of the Parliament (Oliy Majlis) in the sphere of the water relations regulation includes: enactment of water legislative acts, and amendments and addendums relating thereto; definition of the state water resources use and protection policy orientation and adoption of the strategic national water programmes.

Water resources state management is executed by the Cabinet of Ministers of the Republic of Uzbekistan, local governing bodies, and competent state water management agencies directly or through basin (territorial) managements and other state agencies.

Competent state water management agencies are the Ministry of Agriculture and Water Management of the Republic of Uzbekistan (surface waters), the State Committee for Geology and Mineral Resources of the Republic of Uzbekistan (groundwater) and the State Inspection for Supervision of Geological Study of Subsoil, Safe Work in Industry and Mining at the Cabinet of Ministers of the Republic of Uzbekistan (thermal and mineral waters) within their competence.

2.4. TYPES OF WATER USE AND WATER USERS

The Law № 3PY-240 on introducing amendments and addenda to some legislative acts of the Republic of Uzbekistan in connection with deepening of economic reforms in agriculture and water management, dated December 25, 2009 brought in a number of amendments and addenda in the Uz Law on Water and Water Use. For example, such concepts were introduced as «water consumption» and «water use». Thus, by its purpose-oriented use the water consumption can be for drinking, household, medical, resort, recreational, fishery, industrial, energy, agricultural and other purposes. Depending on the

quantity of water withdrawn from a watercourse the water consumption can be general and special.

General water consumption is the use of water by people in order to satisfy their personal drinking, household, recreational, medical needs, as a watering place for livestock and other needs without exploitation of special constructions and devices that could impact the state of waters and water bodies.

Special water consumption is the water consumption which is done by legal entities and physical persons with the help of special constructions and devices that impact the state of waters and water bodies. In some cases water consumption without exploitation of special constructions and devices can be referred to the special water consumption type if the process impacts the state of waters and water bodies.

Water resources are provided for consumption if the requirements stipulated by the legislation and regulations are complied with.

3. WATER QUALITY CONTROL AND PROVISION

3.1. WATER QUALITY

The Amu-Darya basin has considerable water resources. The main consumers of water resources in the basin are the system of irrigation, hydropower, industry, municipal services, and water transport. The river system of the basin is formed of many rivers, most important being Amu-Darya, Surhan-Darya, Kashka-Darya, Zarafshan, Sherabad.

The water purity index (WPI) of the Amu Darya water quality in all stations corresponds to III class of moderately polluted waters. The average mineralization is 962.8 mg/dm³, with its fluctuations along the river current. For example, Termez it makes 714.6 mg/dm³, and lower along the current Nukus increases to 1,313.2 mg/dm³. The mineralization of water increases a little during the low-water season (916.3 – 3255.0 mg/dm³) and decreases in the flood time (378.4 – 622.9 mg/dm³). The average content of nutrients by chemical oxygen demand (COD) Termez reaches 19.8 mg/dm³, increasing to the river mouth to 43.79 mg/dm³. Content of phenols is low, within 1 MPC. The content of ammonium, nitrite and nitrate nitrogen is not high, their average content being 0.01 mg/dm³.

The chemical water composition of the river Surhan-Darya is under a significant influence of pollutants arriving with the wastewater from urban industrial companies and agriculture. The water mineralization increases along the river current from 540.3 mg/dm³ to 1148.0 mg/dm³. The content of nutrients, phenols, mineral oil, ammonium, nitrite and nitrate nitrogen is not high, within 1 MPC and lower. The Surhan-Darya WPI in all river stations corresponds to III class of moderately polluted waters.

Similarly, the chemical water composition of the river Zarafshan is substantially influenced by pollutants arriving with the wastewater from urban industrial companies and agriculture. The water mineralization increases along the river current from 276.9 mg/dm³ to 1330.7 mg/dm³. The WPI of the Zarafshan water quality in all the river stations lower the Siab collector and the Khatyrchi settlement corresponds to III class, in all the other river stations – to II and III class of moderately polluted waters.

The Syr-Darya watershed is formed of many rivers, the main being the Syr-Darya, Naryn, Kara-Darya, Chirchik, Akhangaran.

The Syr-Darya WPI in all river stations corresponds to III class of moderately polluted waters. The average mineralization is 1,096.5 mg/dm³, with its fluctuations along the river current. For example, in the station at Namangan it makes 686.2 mg/dm³, and lower along the current, in the station lower the settlement Nadezhdensky increases to 1,070.1 mg/dm³. The water mineralization increases to some extent during the low-water season (916.3 – 3255.0 mg/dm³) and decreases in the flood time (378.4-622.9 mg/dm³). The content of nutrients, phenols, mineral oil, ammonium, nitrite and nitrate nitrogen is not high, within 2 MPCs and lower. The content of copper does not exceed 4.4 MPCs.

The chemical water composition of the river Chirchik is formed under a substantial influence of the pollution arriving with the wastewater from urban industrial companies and agriculture. The average concentration of mineral salts makes 347.4 mg/dm³. Depending on the hydrological regime the salinity of water varies from 141.1 to 810.2 mg/dm³, amount of nutrients in water fluctuates from 1.07 to 20.1 mg/dm³. The mineral nitrogen pollution is specific, with the highest concentration reaching 5, 6 MPCs. The content of heavy metals (copper) is 3, 2 MPCs. The content of phenols and mineral oil keeps within 1 MPC and lower. The Chirchik WPI corresponds to class II pure and III moderately polluted waters. (Source: UzHydroMet Surface Water Quality Bulletin 2009).

In accordance with the nature protection legislation and adverse impact of economic activities on the state of the environment is controlled by the environment quality norms and standards that ensure environmental safety of the population, recreation and protection of natural resources.

Prior to the development of territorial and production complexes, industry, agriculture, building and reconstruction of cities and other settlements, maximum permissible man-caused environmental loads are established.

Exploitation of water bodies for disposal of industrial, household, storm drain and other wastewater is carried out in accordance with the legislation and with the permission of relevant nature protection, agricultural and water management authorities upon endorsement of the state agencies for sanitary

inspection, supervision of safe work in industry and mining, and household sector, geology and mineral resources.

The permit is granted under the documents proving the necessity and possibility of using water bodies for wastewater disposal.

The procedure for development and registration of the draft norms of maximum permissible pollutants disposal in water bodies and into and onto land is executed in view of technically feasible indices of wastewater treatment. Norms of maximum permissible disposals (MPD) of harmful substances are established separately for each source of pollution, in view of inadmissibility of exceeding the maximum permissible concentration of harmful substances in water bodies and violation of conditions of its purpose-oriented use.

When wastewater is disposed in the water bodies used for drinking and household purposes, if the norms of water quality are exceeded or its natural structure and properties violated, they should anyway be maintained in waterways starting from the river station located 1 km along the current above the nearest point of water use (water intake for economic and drinking purposes, balnearies and recreational places, territories of settlements, etc.) up to the place of water use, and in water bodies – in the basin of a 1-km radius from the water use point.

3.2. CLASSIFICATION OF WATERS BY INTEGRAL QUALITY INDICES

Pursuant to the national classification, surface water bodies are subdivided into 7 classes:

- I. very pure waters
- II. pure waters
- III. moderately polluted waters
- IV. polluted waters
- V. impure waters
- VI. heavily impure waters
- VII. extremely impure

The Centre of Hydrometeorological Service at the Cabinet of Uzbekistan supervises the chemical compound of the national surface waters of 57 water bodies, at 84 points and 106 river stations.

In 2010 1,008 samples were selected and analysed. The UzHydroMet labs analysed 56,007 samples to define the salt structure, nutrient and polluting substances under the priority and specific polluting components list in accordance with the State Programme for the National Environment Monitoring for 2006-2010.

3.3. LEGISLATIVE FRAMEWORK

Pursuant to the Constitution of Uzbekistan and Laws on Nature Protection, Water and Water Use, Land Code, and other relevant legislative acts companies, organisations, establishments and citizens are forbidden to:

- Dispose industrial, household and other types of liquid and solid wastes in water bodies;
- Pollute and contaminate water and water bodies due to spills of oils, wood, chemical, petrol and other products;
- Pollute and contaminate the surface of water outlets, ice covers, water bodies and glaciers with industrial and household waste, refuse and emissions, oil and chemical products the runoff of which will entail deterioration of surface and groundwater;
- Pollute waters with fertilizers, pesticides and other harmful substances.

The institutional basis in the sphere of water quality depends on the type of water use and includes the following documents:

GOST 17.1.3.07-82 «Nature protection. Hydrosphere. Water quality control regulations at water bodies and watercourses. Interstate standard»;

GOST 17.1.5.05-85 «Nature protection. Hydrosphere. Mechanisms for selection of samples of surface and sea waters, ice and atmospheric precipitation. General specifications». Applies to surface and sea waters, ice of water bodies and watercourses, sea and glacial ice and precipitation. The standard establishes the general mechanisms for selection of samples to define their chemical structure and physical properties at organizing the state quality control of water, ice and precipitation;

O'z DSt 951: 2000 «Centralised sources of drinking water supply. Hygienic, technical requirements and selection procedures» applies to all centralised sources of water supply, including brackish and salty water sources, sources for newly designed and reconstructed systems of domestic and drinking water supply, and complex water supply systems for drinking and industrial purposes;

O'z DSt 950: 2000 «Drinking water. Sanitary requirements and quality control» – Water supply sources quality control in water intake stations is carried out pursuant to the requirements of O'z DSt and Uz SC «Hygienic and sanitary requirements to centralised sources of domestic and drinking water supply. Selection procedures». The list of monitored indices is established by type of analyses with the account of the type and class of a water supply source, as well as local environmental and sanitary conditions.

3.4. STATE AGENCIES AND ORGANIZATIONS ENSURING WATER SAFETY AND CONTROL

To ensure environmental monitoring, control, assessment and forecast in the Republic of Uzbekistan the system of the National Environmental Monitoring (NEM) was created.

Environmental monitoring and control over the use of natural resources is executed by competent authorities, companies, organisations and establishments which activity results in or can lead to deterioration of the environment.

Competent authorities and specified companies, organisations and establishments are to submit monitoring data to the relevant state agencies free of charge.

Environmental monitoring in the Republic of Uzbekistan is executed by the authorised ministries and departments pursuant to Decision of the Cabinet of Ministers № 111 dated April 3, 2002 on Approval of Regulations for the National Environmental Monitoring in the Republic of Uzbekistan and the State Programme for the National Environment Monitoring for 2006-2010 adopted by Decision of the Cabinet of Ministers № 48 dated 16.03.2006.

The activity of the ministries, departments and executive agencies in the sphere of the National Environmental Monitoring is coordinated by the State Committee for Nature Protection of the Republic of Uzbekistan.

Monitored data is synthesized by the Information Analysis Centre under GosComPriroda Uzbekistan, and departmental divisions of the relevant ministries and departments.

The National Environmental Monitoring is executed by:

- ***The State Committee for Nature Protection of the Republic of Uzbekistan*** (GosComPriroda) – monitoring sources of pollution and monitoring land ecosystems;
- ***The Centre of Hydrometeorological Service at the Cabinet of the Republic of Uzbekistan*** (UzHydroMet) – monitoring the state of pollution, surface (natural watercourses) waters and background monitoring;
- ***The Ministry of Agriculture and Water Management of the Republic of Uzbekistan*** – monitoring collector-drainage water (CDW) qualities (mineralization) in main collectors;
- ***The State Committee for Geology and Mineral Resources of the Republic of Uzbekistan*** (GosComGeologiya) – monitoring groundwater pollution, groundwater deposits formation zones, dangerous geological processes (DGP);
- ***The Ministry of Health Protection of the Republic of Uzbekistan*** (Ministry of Health) – sanitary and epidemiologic surveillance.

The ministries, departments and executive agencies undertake relevant departmental monitoring of the environment.

The source of information for decision-making is the state statistical data reports, data of monitoring and research, results of environmental monitoring, etc.

On the basis of monitoring:

Beside surface water pollution monitoring executed in cooperation with Ministry of Agriculture and Water Management and GosComGeologiya, UzHydroMet administers the State Water Cadastre;

GosComGeologiya administers the State cadastre of protected natural territories and the State cadastre of dangerous geological processes (DGP);

GosComPriroda monitors the sources of pollution in the sphere of wastewater disposals in water bodies, into and onto land;

The Sanitary and Epidemiological Service of the Ministry of Health (SES) monitors drinking-water quality in cities and large settlements, particularly piped water, etc.

Frequency and type of analyses of water samples executed by the SES agencies are defined by special plans and schedules of water quality monitoring and assessment, special instructions of the Ministry of Health adopted in accordance with the established procedure.

The structure, content and monitoring procedure are developed by the State Committee for Nature Protection of the Republic of Uzbekistan and ratified by The Cabinet of Ministers of the Republic of Uzbekistan.

Wastewater disposal in water bodies is only permitted if it does not result in increase of polluting substances in them and excess of the set MPCs and provided the water user and the water consumer purify the wastewater to the level and norms established by nature protection and sanitary inspection agencies. (***The scheme of monitoring functioning***).

If the specified requirements are violated, wastewater disposal should be limited, suspended or forbidden the nature protection and sanitary inspection agencies up to the termination of activity of separate plants, shops, the companies, the organisations, establishments. If such cases are a menace to health of the population, wastewater disposal should be suspended up to the layoff of industrial and other entities.

The purpose of the National Environmental Monitoring is surveillance of physical, chemical, biological processes, levels of air, soil, surface and groundwater pollution, impact of pollution on flora and fauna, distribution of current and emergency information on environmental changes and forecasts among all the stakeholders and the population.

The information on the state of the environment is open source and its basic indices are regularly published by the relevant state nature protection agencies in the mass media.

The state nature protection agencies must immediately inform the public of disasters and other accidents which led to the pollution of the environment above permitted levels.

The state cadastres of natural resources are designed to keep account of quantitative, qualitative and other characteristics of natural resources, their amount and regimes of their use.

Subject to monitoring and assessment are also the objects that affect or can have adverse impact on the state of the environment, as well as types and quantity of harmful substances getting into the environment, volumes and structure of wastes.

The structure, procedure and activity of the National Environmental Monitoring, the institutional procedures for administering the state cadastres of natural resources, Government Accounting of the environmentally hazardous objects are established by the Cabinet of Ministers of the Republic of Uzbekistan.

4. WATER QUALITY MANAGEMENT

4.1. WATER QUALITY MONITORING SCHEME AND METHODS

Standards for potable water quality include several indicators: microbiological, parasitological, toxicological (non-organic and organic components), organoleptic, and indicators of radioactive pollution (frequency of monitoring is established by the local administration in view of the radiation environment, but not less than once a year) and are defined in accordance with Standard O'z DSt 950: 2000 «Drinking water. Sanitary requirements and quality control».

Basically, the quality of surface water purity is defined by 20 components, i.e. oxygen, BOD₅, COD, nitrogen ammonium, nitrogen nitrite, nitrogen nitrate, iron, copper, zinc, phenols, mineral oil, Synthetic Surfactants (SS), suspended solids, DDT, alpha-HCH, gamma-HCH, chrome, fluorine, arsenic, and mineralization.

The sampling site is selected depending on the purpose of monitoring, character of wastewater outfall, and in accordance with the technical scheme of the water drain system. Frequency of sampling is defined by the purpose of the analysis. The terms are chosen in view of hydrological regime and wastewater composition at the site.

The sampling programme is developed to define the chemical composition and physical properties of water. It sets the list of parameters; sampling site requirements; periodicity and frequency of sampling, and if required, statistical sampling data manipulation in order to define the optimum frequency of monitoring and sampling. The sampling method is defined by water type, sampling depth, purposes of the analysis and the list of parameters. The work is executed in

accordance with GOST 17.1.3.07-82 «Nature protection. Hydrosphere. Water quality control regulations of water bodies and watercourses. Interstate standard».

4.2. MONITORING OF QUALITATIVE CHARACTERISTICS

Analytical work is done in accordance with the methodology included in the List of certified and temporarily admitted methods of measuring environmental pollutants adopted by GosComPriroda Uzbekistan and coordinated with the UzStandard Agency. To control the process of water quality assessment there was created an internal audit system in the departments responsible for monitoring.

Regular monitoring of the state of wastewater is conducted in accordance with the List of industrial companies included in the Environment Monitoring Programme. The List of companies includes most hazardous sources of water pollution, i.e. in case there is disposal by the companies of wastewater into surface waters, treatment facilities and aeration stations with the capacity of >200 m³/day; natural waterways and water bodies, having wastewater disposals of not lower than III and IV class by WPI; any toxicological signs referring to I and II class of danger.

CONCLUSIONS AND RECOMMENDATIONS

Under the water resources scarcity water management development in Central Asia requires thorough water strategy. An integrated system of water storage basins for seasonal and long-term regulation of river runoffs, water intake constructions, channels, and hydropower stations was to provide both interstate and intersectoral requirements of water consumers.

This draft report analysed key approaches and principles in the sphere of control and standardization, assessed existing institutional and legal framework, and proposed recommendations.

CHAPTER 1 CONCLUSIONS

The rivers of Uzbekistan belong to the Aral Sea basin. Only a small part of runoff flowing in the country is formed within its territory. Syr-Darya and Amu Darya, the lifeblood of Uzbekistan, originate without the territory of the country.

The share of the water resources formed in the territory of the Uzbek part of the Amu-Darya basin equals 6%, the Syr-Darya – 16%, and in the country as a whole – approx. 8% of their total runoff. An important role in maintaining the vital functions of water and aquatic ecosystems in the territory of Uzbekistan is played by collector drainage dumps (CDD) and wastewaters, their total volume

fluctuating between 28 and 33.5 km³ a year, of which 13.5-15.5 km³ is formed in the Syr-Darya basin and 16-19 km³ in the Amu-Darya basin.

Scarcity of water resources hinders economic development of the country.

CHAPTER 2 CONCLUSIONS

In order to implement the goals of the water legislation the country adopted a number of legislative acts, including the Decision of the Cabinet of Ministers of the Republic of Uzbekistan «On adoption of the regulations on sanitary protection zones...», and such acts as Land Code of the Republic of Uzbekistan and «On protected natural territories».

The key role in creating an efficient system of shared use of resources in Central Asia should be given to the best international practice and legal framework on transboundary rivers and watercourses. Cooperation based on conventional international norms and regulations will ensure sovereign equality, territorial integrity, mutual benefit and justice in shared use of natural resources for each party. At present the state of the Central Asian international cooperation legal framework does not meet the character of transboundary problems in the region and requires enhancement.

CHAPTER 3 CONCLUSIONS

Water quality control and provision is executed within the GOSTs and normative and legislative documents regulating the requirements to water quality by types of water use.

One of the drawbacks of this system is that it sometimes ignores the regional conditions of surface water chemical composition formation and the background state of water.

Water quality management approaches remain invariable and are based on sanitary standards which demand compliance with the maximum permissible concentration (MPC) of polluting substances in the water of water bodies. The maximum permissible disposals (MPD) are still calculated on the basis of MPC without respect to the self-cleaning capacity of a water body.

CHAPTER 4 CONCLUSIONS

Water quality indices and monitoring in Uzbekistan are controlled in accordance with the current regulatory legislative acts.

Basically, the quality of surface water purity is defined by 20 components.

Environmental monitoring in the Republic of Uzbekistan is executed by the authorised ministries and departments pursuant to Decision of the Cabinet of Ministers № 111 dated April 3, 2002 on Approval of Regulations for the

National Environmental Monitoring in the Republic of Uzbekistan and the State Programme for the National Environment Monitoring for 2006-2010 adopted by Decision of the Cabinet of Ministers № 48 dated 16.03.2006.

The results of monitoring are analysed and published in the newsletter On the state of sources of pollution and their environmental impact on the territory of Uzbekistan, published every 2 years, and Monitoring and assessment of the state of environment: Report on Environmental State and Use of Natural Resources in the Republic of Uzbekistan, published once in 3 years. With the participation of the relevant ministries and departments GosComPriroda prepares the National Report on Environmental State and Use of Natural Resources in the Republic of Uzbekistan, published every 2 years. Data of these publications is intended for experts in the sphere of nature protection, competent ministries and departments involved in environmental monitoring, ecologists of industrial companies, agriculture and water management, dealing with the issues of environment assessment in the Uzbek territory.

At present the water quality legislative basis in the Republic of Uzbekistan meets the relevant requirements, but at the same time requires further enhancement and harmonization with the international standards, regarding the use of transboundary watercourses.

RECOMMENDATIONS

The conclusions allow proposing the following recommendations on enhancing the water quality standards and norms in Central Asia:

- Develop international legislative basis to regulate the use of the transboundary rivers and watercourses;
- Develop joint action plans of the CA countries in the sphere of water quality standards and norms management and regulation;
- Review water quality standards and norms at the regional level;
- Create a unified register of maximum permissible concentrations with the account of the regional peculiarities of the Central Asian countries;
- Develop unified water quality measuring methods with the account of the hydrological regime;
- Create a unified electronic water quality database;
- Organize training for experts on execution of activities at the regional level.

LIST OF LEGISLATIVE DOCUMENTS USED DURING REPORT PREPARATION

1. The Constitution of the Republic of Uzbekistan. December 8, 1992
2. The Law of the Republic of Uzbekistan on nature protection. December 9, 1992
3. The Law of the Republic of Uzbekistan on Water and Water Use. May 6, 1993
4. The Land Code of the Republic of Uzbekistan. April 30, 1998
5. The Law of the Republic of Uzbekistan on state sanitary surveillance. December 3, 1992
6. The Law of the Republic of Uzbekistan on ecological expertise. May 25, 2000
7. The Code of the Republic of Uzbekistan on administrative responsibility. September 22, 1994
8. The Law of the Republic of Uzbekistan on protected natural territories. December 12, 1992
9. The Decision of the Cabinet of Ministers of the Republic of Uzbekistan on adoption of the regulations on sanitary protection zones of water storage basins and other water bodies, rivers, main channels and collectors, sources of drinking and household water supply, balneary and recreational purposes in the Republic of Uzbekistan. April 7, 1992
10. The Decision of the Cabinet of Ministers of the Republic of Uzbekistan on adoption of the regulations on the National Environmental Monitoring in the Republic of Uzbekistan. April 3, 2002
11. Regulations on the State Committee for Nature Protection of the Republic of Uzbekistan, ratified by the Senate (Oljy Majlis) of the Republic of Uzbekistan. 1996
12. GOST 17.1.5.05-85 Nature protection. Hydrosphere. Mechanisms for selection of samples of surface and sea waters, ice and atmospheric precipitation. General specifications.
13. GOST 17.1.5.04-81 Nature protection. Hydrosphere. Instruments and devices for selection, primary treatment and storage of natural water samples. General specifications.
14. HBH 33-5.3.01.85 Instruction on wastewater sampling for analysis.
15. O'z DSt 950: 2000 Drinking water. Sanitary requirements and quality control
16. O'z DSt 8.004: 2004. Physical properties of materials and substances: Standard samples. General specifications.

17. GOST 25151-82 «Water supply. Terms and definitions»
18. GOST 17.1.3.08-82 Nature protection. Hydrosphere. Sea water quality control.
19. GOST 27065-86 «Water quality. Terms and definitions»
20. GOST 17.1.3.07-82 Nature protection. Hydrosphere. Water quality control regulations at water bodies and watercourses. Interstate standard.
21. GOST 17.1.1.02-77 Nature protection. Hydrosphere. Classification of water bodies. Interstate standard.

National Report Questionnaire
WATER QUALITY STANDARDS AND NORMS IN THE
REPUBLIC OF UZBEKISTAN

The Questionnaire presents answers and comments based on the legislation and official practice of the water resources and water quality agencies adopted in the Republic of Uzbekistan.

Country, city, expert, organisation, date:

The Republic of Uzbekistan, Tashkent, the State Committee for Nature Protection of the Republic of Uzbekistan, 05.11.2010 – 10.11.2010.

1. WATER RESOURCES AND WATER QUALITY MANAGEMENT

1. Main document regulating the Water legislation in the country

	Adopted	The Title of the Document:	Date
1a	yes	The Law of the Republic of Uzbekistan on Water and Water Use	May 6, 1993 № 837-XII
2a		The Law of the Republic of Uzbekistan on Nature Protection	December 9, 1992; № 754-II
2b		The Land Code of the Republic of Uzbekistan	April 30, 1998 № 598-I
2c		The Law of the Republic of Uzbekistan on adoption of the Constitution of Uzbekistan	December 8, 1992; № 723-XII
2d		The Law of the Republic of Uzbekistan on state sanitary surveillance	December 3, 1992 № 657-XII
		The Law of the Republic of Uzbekistan on ecological expertise	May 25, 2000 № 73-II
		The Code of the Republic of Uzbekistan on administrative responsibility	September 22, 1994; № 2015-XII
		The Law of the Republic of Uzbekistan on protected natural territories	December 3, 2004 №710-II
		The Decision of the Cabinet of Ministers of the Republic of Uzbekistan on adoption of the regulations on sanitary protection zones of water storage basins and other water bodies, rivers, main channels and collectors, sources of drinking and household water supply, balneary and recreational purposes in the Republic of Uzbekistan	April 7, 1992 № 174

Comment on 2a

The Law of the Republic of Uzbekistan on Nature Protection.

Article 19. Terms of water and watercourse use. «Surface, underground and sea waters in the territory of Uzbekistan are used on condition of securing necessary quantity of water in the natural turnover, ensuring its standard cleanliness, preservation of water flora and fauna, non-admission of water bodies pollution, maintenance of eco-balance and abstinence from causing damage to a water body as a landscape element.

Local authorities, forestry and water management are to execute forest regeneration and forest renewal in the zones of river runoff formation, coastal strips of water bodies and ensure their safety».

Comment on 2b

The Land Code of the Republic of Uzbekistan.

Article 77. Water fund lands.

«The water fund lands include land under water bodies (rivers, lakes, water storage basins, etc.), hydrotechnical and other water management constructions, and also right-of-ways on the banks of watercourses and other water bodies officially leased to the companies, businesses and organisations for their water management needs.

Along the river banks, main channels and collectors, water storage basins and other water bodies, sources of drinking and household water supply, places of balneary and recreational purposes the sanitary protection zones and coastal strips are established in the order defined as established by the legislation.

Coastal strips of the rivers, main channels, collectors, water storage basins and other water bodies can be withdrawn from the land owners and land users for the nature protection purposes.

Any economic and construction activity on water fund lands which might have a negative impact on water bodies is forbidden.

The water fund land use procedure is defined by the legislation».

Comment on 2e

The Constitution of the Republic of Uzbekistan. Article 55. «Land, subsoil, water, flora and fauna, and other natural resources are national riches, which are subject to efficient exploitation and protected by the state».

Comment on 2d

The Law of the Republic of Uzbekistan on protected natural territories.

Article 40. Sanitary protection zones, coastal strips, water body sanitary protection zones and surface and groundwater formation zones.

«Sanitary protection zones include protected natural territories adjoining river channels, lakes, water storage basins, channels, collectors and other water bodies. These zones are formed with a view of preventing pollution, contamination, depletion and sedimentation of water bodies with the products of soil erosion, and maintaining a favourable water regime.

Coastal strips are protected natural territories within a sanitary zone of strict protection regime.

Water body sanitary protection zones are protected natural territories of strict regime that adjoin water bodies used for drinking, household, and medical and health needs.

Surface and groundwater formation zones are protected natural territories within river valleys, talus trains, foothill trails.

Sanitary protection zones, coastal strips, water body sanitary protection zones and the surface and groundwater formation zone are established by decisions of the Cabinet of the Republic of Uzbekistan and locally by public authorities upon presentation of relevant agencies for nature protection, agriculture and water management, sanitary inspection, and geological organisations».

Article 41. The regime of sanitary protection zones, coastal strips, water body sanitary protection zones and zones of surface and groundwater formation.

«Economic activity within sanitary protection zones is restricted. The following activity is forbidden within these zones:

- cutting of wood and shrub plantations (except for improvement and sanitary felling);
- application of pesticides;
- installation of storage facilities for pesticides and mineral fertilizers;
- installation of burial grounds for animal refuse;
- storage and burial of wastes;
- installation of sewer treatment facilities and sewage ponds;
- organizing cattle breeding and poultry farming complexes, and manuring;
- parking, fuelling, washing and repairing any transport means;
- installation of storehouses for mineral oil;
- flax, ambary, leather washing.

In coastal strips, in addition to restrictions and interdictions stipulated by article 1 hereunder, the following activities are forbidden:

- application of mineral and organic fertilizers;
- grazing;

- any types of constructions, except for water facilities construction;
- installation of boat berths off the assigned places.

Water body sanitary protection zones are subdivided into protection strips of various regimes.

Change of stream canals, mining operations and other works that can impact the state of water bodies are subject to permission of relevant agencies for nature protection, agriculture and water management, and geological organisations.

Intersectoral land management and spatial planning of settlements require obtaining permission of relevant agencies for nature protection, agriculture and water management and sanitary inspection to change the borders of sanitary protection zones, coastal strips and water body sanitary protection zones.

The regime of sanitary protection zones and coastal strips extends to the zones of surface and groundwater formation.

The procedure and terms of protection and use of sanitary protection zones, coastal strips, water body sanitary protection zones and zones of surface and groundwater formation are developed by the Cabinet of the Republic of Uzbekistan».

Pursuant to the Code of the Republic of Uzbekistan on administrative responsibility any violation of the water legislation entails certain responsibility.

Article 60. Violation of the property right to natural resources;

Article 72. Violation of the water resources protection regulations;

Article 73. Delinquency in registration operations with hazardous substances and mixtures in vessel papers;

Article 74. Violation of water use and water consumption regulations;

Article 75. Violation of the national water accounting standards;

Article 76. Damage to water facilities and devices, violation of their operation mode;

Article 82. Violation of the regime of specially protected natural territories.

The Decision of the Cabinet of Ministers of the Republic of Uzbekistan «On adoption of the regulations on sanitary protection zones...» regulates the order of establishing sanitary protection zones and water bodies sanitary protection zones (districts), and conditions of economic activity in these zones in order to prevent pollution, contamination and depletion of water resources.

3. Purpose of the Water Legislation of the Republic of Uzbekistan		
3a	Monitor the quantitative and qualitative characteristics of the environmental conditions and water	yes

3b	Achieve and maintain environmentally safe and economically opportune levels of water use and water fund protection with the aim of preserving and improving the living conditions of the population and the environment	yes
3c	Achieve optimal level of water use share between the neighbouring countries	yes
3d	Maintain environmentally safe water level	yes
3i	Other purposes and tasks include prevention and mitigation of harmful impact of water, protection of rights and legitimate interests of companies, businesses and organisations, farmers, peasants and the population in the sphere of water relations	

Comment on 3a

The Law of the Republic of Uzbekistan on Water and Water Use

Article 1. The purpose and primary goals of the Law is regulation of water relations.

The primary goal of the Law is to regulate water relations, ensure rational water use for the needs of the population and the national economy, protection of waters from pollution, contamination and depletion, prevention and mitigation of harmful impact of water, improvement of water bodies' condition, and protection of rights and legitimate interests of companies, businesses and organisations, farmers, peasants and the population in the sphere of water relations.

The Law of the Republic of Uzbekistan on Nature Protection

Article 19. Terms of water and watercourse use. «Surface, underground and sea waters in the territory of Uzbekistan are used on condition of securing necessary quantity of water in the natural turnover, ensuring its standard cleanliness, preservation of water flora and fauna, non-admission of water bodies pollution, maintenance of eco-balance and abstinence from causing damage to a water body as a landscape element.

Local authorities, forestry and water management are to execute forest regeneration and forest renewal in the zones of river runoff formation, coastal strips of water bodies and ensure their safety».

Comment on 3b

The Law of the Republic of Uzbekistan on Water and Water Use

Article 11. Conditions for locating, designing, building, reconstructing, repairing, restoring and putting into operation new companies, constructions and other objects, as well as for introducing new technological processes which could impact the state of waters and water bodies.

Article 12. Conditions for locating, designing, building, reconstructing and putting into operation new companies, constructions and other objects on fishery water bodies.

Article 13. Location of sites for building, reconstruction, repair and restoration of the companies, constructions and other objects which could impact the state of waters and water bodies.

Article 14. Endorsement and public examination of building, reconstructing, repairing and restoring designs of new companies, constructions and other objects which could impact the state of waters and water bodies.

Article 15. Ban on putting into operation new companies, constructions and other objects could impact the state of waters and water bodies.

Article 16. Endorsement of civil-engineering designs of bridges, crossings and other transport communications through water bodies.

Article 14. Endorsement and public examination of building, reconstruction, repair and restoration designs of new companies, constructions and other objects which could impact the state of waters and water bodies. «Building, reconstruction, repair and restoration designs of new companies, constructions and other objects which could impact the state of waters and water bodies are to be endorsed by the relevant agencies of agriculture and water management, sanitary inspection, nature protection, geology and mineral resources and other bodies, and undergo public examination hereunder.

Projects on repair and restoration of land reclamation objects undergo public examination in accordance with the legal procedure.

It is forbidden to design and construct once-through system in industrial enterprises which under the conditions of production cannot switch to recycling water supply and non-waste technology».

Article 15. Ban on putting into operation new companies, constructions and other objects could impact the state of waters and water bodies.

«It is forbidden to put into operation:

- new and reconstructed factories, workshops, municipal and other objects which are not equipped with pollution prevention facilities, and can have an adverse impact on the state of waters and water bodies;
- irrigation canals and systems, water storage basins and canals prior to implementation of special activity stipulated by the projects aimed at preventing flooding, waterlogging, bogging, soil salinization and land erosion;
- drainage system prior to readiness of water intakes and other constructions as stipulated in the approved designs;
- water intake constructions without fish screens as stipulated in the approved designs;
- hydrotechnical constructions prior to readiness of devices for flood waters and fish passing as stipulated in the approved designs;

- group water intake stations without the confirmed groundwater stocks;
- water wells without their equipment with water regulating devices and, if required, creation of sanitary protection zones.

It is forbidden to fill up dams before carrying out activities relating to the preparation of river beds as required by the design.

Article 32. The rights of water users.

«Water users have the right to:

- use water objects only according to their intended purposes;
- construct and reconstruct buildings, installations, and other objects for the use of water as set by the Law;
- control the quantity and quality of the water supply;
- demand indemnification of the water not duly received under the water use contract, except for the cases stipulated in the legislation;
- participate in decision-making on water resources management;
- propose to review the water intake norms pursuant to the forecast and actual water content of the source;
- claim damages caused by violations of their rights and legitimate interests, including the right to water in accordance with the water intake norms and water delivery regime as stipulated by the legislation.

Water users can have other rights hereunder».

Article 32-1. The rights of water consumers.

«Water consumers have the right to:

- control the quantity and quality of the water supply;
- demand indemnification of the water not duly received under the water use contract, except for the cases stipulated in the legislation;
- participate in decision-making on water resources management;
- propose to review the water intake norms in view of their own needs;
- form associations (unions) and other organizations to coordinate their activity in the sphere of water relations, and represent and protect their common interests;
- claim damages caused by violations of their rights and legitimate interests, including the right to water in accordance with the water intake norms and water delivery regime as stipulated by the legislation.

Water consumers can have other rights hereunder».

Article 35 and 35-1 Responsibilities of water users and water consumers.

«Water users and water consumers are obliged to:

- sustainably use water bodies, take action to efficiently use water, restore and improve water quality;
- observe the set water intake norms and standards and water use regulations;
- in case of special water use apply for a permit as required by the legislation;
- take measures to a complete discontinuance of sewage disposal in water bodies if such wastewater contains polluting substances;
- debar from violating the rights and legitimate interests of other water users and water consumers, and damaging water facilities and other utilities, and natural resources (land, forests, fauna, minerals, etc.);
- maintain water bodies, water protection and other constructions, and other facilities in good working order, update their operational qualities and observe the set rules of their operation;
- keep account of water amount at water intake and water supply, and hand in reports as required by the legislation;
- duly pay for the use of water resources, water supply services and other related water services provided on a contractual basis;
- take measures to save water;
- assist water consumers in water efficiency;
- take measures to prevent and mitigate pollution, contamination and depletion of water, eliminate water hazards for water bodies, and debar from polluting the watershed area of surface and groundwater;
- observe the set regime of the sanitary protection zones, coastal strips and water body sanitary protection zones;
- hereunder admit representatives of the official water use and protection control agencies to the water utilities, and provide them with the necessary information;
- duly inform local authorities of accidents and other calamities of natural and anthropogenic character that can affect the state of waters and water bodies, and be involved in implementation of measures to eliminate the aftermaths and execution of repair and refurbishment work on the water bodies as required by the legislation;
- undertake actions to protect fish, other aquatic flora and fauna.

Water users can have other responsibilities hereunder».

Comment on 3c

The Law of the Republic of Uzbekistan on Water and Water Use

Article 83. Control over the use of transboundary water bodies located in the territory of Uzbekistan and other countries of the Aral Sea basin.

Control over the use of transboundary water bodies (the rivers Amu Darya, Syr-Darya, Zarafshan, the Aral Sea and other transboundary water bodies), located in the territory of Uzbekistan and other countries of the Aral Sea basin is executed pursuant to the international agreements of the Republic of Uzbekistan.

Article 84. Water use and water consumption on transboundary water bodies

Water use and water consumption, water management and water protection measures on transboundary watercourses are executed pursuant to the international agreements of the Republic of Uzbekistan.

Wherever water use or water consumption regarding transboundary water bodies of Uzbekistan is not stipulated by the international agreements, it is executed in accordance with the Uzbek legislation.

Comment on 3d

The Law of the Republic of Uzbekistan on Water and Water Use

Article 78. Filling and drawdown regimes of water storage basins.

«Companies, establishments and organisations operating dams, dikes, water discharge and water intake facilities, hydropower complexes and other constructions on water storage basins are to observe the filling and drawdown regimes of the water storage basins as set according to the operating rules and interests of water users, water consumers, proprietors of the ground areas, land owners and land users situated within the influence zones of water storage basins. Creation of water storage basins aims at runoff regulation to satisfy the water needs of various water users and water consumers. Filling and drawdown regimes of water storage basins, water level fluctuations, its discharge through the waterworks facilities, unobstructed and safe passing of ships, and passing of fish through to spawning grounds are defined by the operating rules of water storage basins».

Comment on 3i

The Law of the Republic of Uzbekistan on Water and Water Use

Article 103. Responsibilities of companies, establishments and organisations in prevention and mitigation of water hazards

«Upon approval of agencies of nature protection, agriculture and water management, geology and mineral resources, local authorities, other stakeholders or by order of representatives of relevant state agencies

companies, establishments and organisations are to undertake measures for prevention and mitigation of:

- flooding, inundation and waterlogging;
- destruction of riverbanks, protective dams and other facilities;
- bogging and salinization of soil;
- soil erosion, gully erosion, landslips, mudflows and other water hazards».

Article 104. Implementation of urgent preventive and mitigation measures on the aftermaths of natural disasters caused by water hazards

«Implementation of urgent preventive and mitigation measures on the aftermaths of natural disasters caused by water hazards is regulated by the legislation.

Flood and mudflow prevention and mitigation emergency measures in the territory of an administrative area are implemented by local public authorities. (in the reviewed version of Uz Law N 3PY-240 dated 25.12.2009)

When required the Cabinet of Ministers of the Republic of Uzbekistan, local regional and municipal authorities create versatile flood and other ad-hoc committees to enhance implementation of prevention and mitigation measures to eliminate the aftermaths of water hazards. Such committees are composed of representatives of the relevant companies, organisations and establishments, and representatives of agriculture and water management and nature protection agencies.

Article 33. Protection of the rights of water users and water consumers

«The rights of water users and water consumers are protected by the law. The violated rights of water users and water consumers are to be restored hereunder».

4. Public administration in the sphere of water fund use and protection is executed by		
4a	The Cabinet of Ministers of the Republic of Uzbekistan and competent authorities	yes
4b	Competent authorities	yes
4c	Water consumers' associations	yes
4d	Oljy Majlis	yes
	Other ministries and departments. Please specify.	

Comment on 4a

The Law of the Republic of Uzbekistan on Water and Water Use

Article 8. Water resources state management

«Water resources state management is executed by the Cabinet of the Republic of Uzbekistan, local authorities, and ad-hoc water management state-run public authorities directly or through basin (territorial) managements and other state agencies.

Ad-hoc water management state-run public authorities are the Ministry of Agriculture and Water Management of Uzbekistan (surface waters), the State Committee for Geology and Mineral Resources of the Republic of Uzbekistan (groundwater) and the State Inspection for Supervision of Geological Study of Subsoil, Safe Work in Industry and Mining at the Cabinet of Ministers of the Republic of Uzbekistan (thermal and mineral waters) within their competence».

Comment on 4b

The Law of the Republic of Uzbekistan on Water and Water Use

Article 9. The state water use and protection control

The task of the state water use and protection control is to ensure observance by all ministries, state committees, departments, companies, establishments, organisations of all forms of property, farmers, peasants and the population, of the current water regulations, their water protection commitments and obligations to undertake due preventive and mitigation measures, follow water accounting regulations, and other regulations of the water legislation.

The state water use and protection control is executed by local authorities, the State Committee Nature Protection of the Republic of Uzbekistan for, the State Inspection for Supervision of Geological Study of Subsoil, Safe Work in Industry and Mining at the Cabinet of Ministers of the Republic of Uzbekistan, the Ministry of Public Health of the Republic of Uzbekistan, the Ministry of Agriculture and Water Management of Uzbekistan as established by the legislation. Departmental water management is carried out by the agencies of the State Committee for Geology and Mineral Resources of the Republic of Uzbekistan.

Comment on 4c

The Law of the Republic of Uzbekistan on Water and Water Use

Article 10. Public participation of water users' associations, other non-governmental non-commercial organisations, and the general public in implementation of actions on efficient use and protection of water and water bodies.

«Water consumers' associations, other non-governmental non-commercial organisations, pursuant to their charters, and the general public assist state agencies in implementation of actions on efficient use and protection of waters and water bodies. In the process of this work the state agencies can consider the proposals of water consumers' associations, other non-governmental non-commercial organisations, and the general public».

Comment on 4d

The Law of the Republic of Uzbekistan on Water and Water Use

Article 5. Competence of Oljy Majlis in the sphere of water relations regulation

«Competences of Oljy Majlis in the sphere of water relations regulation include: enactment of water legislative acts, and amendments and addendums relating thereto; definition of the state water resources use and protection policy orientation and adoption of the strategic national water programmes; administration of other issues within the competence of the Oliy Majlis».

5. Water fund use and protection scheme		
5a	Interstate	yes
5b	State	yes
5c	Basin	yes
5d	Territorial	yes
	Another, please specify	

Comment on 5a

The Law of the Republic of Uzbekistan on Water and Water Use

Article 83. Control over the use of transboundary water bodies located in the territory of Uzbekistan and other countries of the Aral Sea basin.

«Control over the use of transboundary water bodies (the rivers Amu Darya, Syr-Darya, Zarafshan, the Aral Sea and other transboundary water bodies), located in the territory of Uzbekistan and other countries of the Aral Sea basin is executed pursuant to the international agreements of the Republic of Uzbekistan».

Article 84. Water use and water consumption on transboundary water bodies

«Water use and water consumption, water management and water protection measures on transboundary watercourses are executed pursuant to the international agreements of the Republic of Uzbekistan.

Wherever water use or water consumption regarding transboundary water bodies of Uzbekistan is not stipulated by the international agreements, it is executed in accordance with the Uzbek legislation».

Comment on 5b

The Law of the Republic of Uzbekistan on Water and Water Use

Article 6. The competence of the Cabinet of Ministers of the Republic of Uzbekistan in the sphere of water relations regulation

«Competences of the Cabinet of Ministers in the sphere of water relations regulation:

- implementation of a unified policy of water resources rational and multipurpose use, and protection;
- coordination of ministries, departments and juridical persons' activities relating to the multipurpose use and protection of water resources;
- setting an institutional basis for the creation and use of the water fund, approval of water use standards and norms;
- ensuring administration of the state water accounting, use and protection, administering the state water cadastre and water monitoring;
- working out preventive and disaster response measures, i.e. aftermaths of major accidents, disasters, natural hazards and water hazards;
- creating the system of payments for water resources, indemnification of environment pollution and depletion of water bodies;
- development of interstate relations;
- implementation of other measures stipulated by the legislation».

Comment on 5c

The Law of the Republic of Uzbekistan on Water and Water Use

Article 48. Planning of water use and water consumption for agricultural purposes

«Water use and water consumption are executed on the basis of water use and water consumption plans in view of annual water supply.

Water use and water consumption planning on a collector-drainage network is executed with the account of the state of the reclaimed land and quality of collector-drainage water.

Water consumption plans are developed and endorsed by water consumers' associations. Water consumers' associations generalise water consumption plans and develop plans of water use.

Water use plans of water consumers' associations are generalised by irrigational system administrations and basin irrigational system administrations.

The developed and generalised plans of water use are to be endorsed:

- for water consumers' associations – by irrigational system administrations in coordination with regional department agriculture and water management;
- for irrigational system – by basin irrigational system administrations in coordination with relevant territorial bodies of the Ministry of Agriculture and Water Management of Uzbekistan;

- for basin irrigational system, large and key water utilities – by the Senior Water Management under the Ministry of Agriculture and Water Management of Uzbekistan».

Comment on 5d

The Law of the Republic of Uzbekistan on Water and Water Use

Article 7. The competence of local authorities in the sphere of regulation of water relations

«Competences of the local governing bodies in the sphere of water relations regulation:

- prioritizing directions of water resources use and protection within their administrative territories;
- enforcing law and order in the sphere of water resources use and protection;
- water bodies monitoring and assessment, water use and protection control, ensuring compliance with the set norms of water consumption, administering water use accounting done by water users;
- implementing preservation and enhancement activities on various water bodies, executing preventive and disaster response measures to mitigate negative impact and water pollution, restoring objects damaged as a result of accidents, floods, mudflows and natural disasters;
- regulation of other issues stipulated by the legislation».

6. Physical properties of surface waters for various types of water use are regulated by		
6a	The Law of the Republic of Uzbekistan on Water and Water Use	yes
6b	GOST 17.1.3.07-82 «Nature protection. Hydrosphere. Water quality control regulations of water bodies and watercourses. Interstate standard»	yes
6c	O'z DSt 951: 2000 «Centralised sources of drinking water supply. Hygienic, technical requirements and selection procedures»	yes

Comment on 6a

The Law of the Republic of Uzbekistan on Water and Water Use

Article 74. Conditions for permissibility of wastewater disposal in water bodies

«Wastewater disposal in water bodies is only permitted if it does not result in increase of polluting substances in them and excess of the set MPCs and provided the water user and the water consumer purify the wastewater to the level and norms established by nature protection and sanitary inspection agencies.

If the specified requirements are violated, wastewater disposal should be limited, suspended or forbidden the nature protection and sanitary inspection agencies up to the termination of activity of separate plants, shops, the companies, the organisations, establishments. If such cases are a menace to health of the population, wastewater disposal should be suspended up to the layoff of industrial and other entities».

Article 97. Tasks of water protection

«All waters (water bodies) are subject to protection from pollution, contamination and depletion which can affect the human health, and entail reduction of fish, deterioration of water supply conditions and other adverse phenomena due to change of physical, chemical, biological properties of waters, decrease in their natural purification capacity, violation of hydrological and hydro-geological regimes».

Article 99. Protection of waters and water bodies from pollution and contamination with waste and refuse

«Companies, organisations, establishments and citizens are forbidden to:

- dispose industrial, household and other types of liquid and solid wastes in water bodies;
- pollute and contaminate water and water bodies due to spills of oils, wood, chemical, petrol and other products;
- pollute and contaminate the surface of water outlets, ice covers, water bodies and glaciers with industrial and household waste, refuse and emissions, oil and chemical products the runoff of which will entail deterioration of surface and groundwater;
- pollute waters with fertilizers, pesticides and other harmful substances».

Comment on 6b

O'z DSt 950: 2000 «Drinking water. Sanitary requirements and quality control» applies to drinking water supplied through centralised drinking water supply systems and centralised multipurpose drinking and industrial water supply systems; selects the register of monitored potable water quality indices, procedure of monitoring the conformity of these indicators with the established requirements in the process of potable water production and supply to consumers.

Comment on 6c

O'z DSt 951: 2000 «Centralised sources of drinking water supply. Hygienic, technical requirements and selection procedures» applies to all centralised sources of water supply, including brackish and salty water sources, sources for newly designed and reconstructed systems of domestic and drinking water supply, and complex water supply systems for drinking and industrial purposes.

The Law of the Republic of Uzbekistan on Water and Water Use

Article 40. Water objects for drinking, household and other needs of the population

«Water objects intended for drinking, household and other needs of the population must secure water quality which correspond the set sanitary and hygienic requirements and national standards».

Article 45. Prohibition to discharge wastewater in the water bodies rated as medicinal mineral waters

«Wastewater disposal in the water bodies rated as medicinal mineral waters is forbidden».

Article 68. Order of water use in national parks and measures for water protection

«The order of water use in national parks is determined by regulations on national parks.

It is forbidden to use water resources of national parks for fishing, hunting, collecting water plants and other purposes which affect the natural state of these waters.

Wastewater disposal into the waters of national parks and execution of irrigation and drainage works which may change the natural state of these waters can be allowed hereunder upon agreement with the administration of the national parks».

7. The goal of water quality rates setting consists in ...		
7a	building sanitary protection zones and strips, including the whole territory of a water object	yes
7b	idetermining the value of maximum permissible concentrations (MPC) for drinking water of a water object	yes
7c	determining for water of a water object the register of admissible values of its physical property indices within which the public health, favourable water use conditions and water object environmental state are ensured	yes
7d	determining the value of maximum permissible concentrations (MPC) for water of a water object intended for fisheries	yes
7i	determining for companies the norms of maximum permissible disposal	yes

Comment on 7a

The Law of the Republic of Uzbekistan on Nature Protection

Article 14. Environmental quality standards

«Adverse impact of economic activities on the state of the environment is controlled by the environment quality norms and standards that ensure

environmental safety of the population, recreation and protection of natural resources.

Prior to the development of territorial and production complexes, industry, agriculture, building and reconstruction of cities and other settlements, maximum permissible man-caused environmental loads are established.

Comment on 7b

O'z DSt 951: 2000 «Centralised sources of drinking water supply. Hygienic, technical requirements and selection procedures» establishes hygienic requirements to selective centralised sources of water supply, and the procedure of their selection in the interests of public health.

Comment on 7i

The Law of the Republic of Uzbekistan on Nature Protection

Article 73. Agencies authorizing the use of water bodies for wastewater disposal

«Exploitation of water bodies for disposal of industrial, household, storm drain and other wastewater is carried out in accordance with the legislation and with the permission of relevant nature protection, agricultural and water management authorities upon endorsement of the state agencies for sanitary inspection, supervision of safe work in industry and mining, and household sector, geology and mineral resources.

The permit is granted under the documents proving the necessity and possibility of using water bodies for wastewater disposal».

8. Water use purposes		
8a	Drinking and household	yes
8b	Recreational and community	yes
8c	Fishery	yes
8d	Other, please specify	

Comments

The Law № 3PY-240 on introducing amendments and addenda to some legislative acts of the Republic of Uzbekistan in connection with deepening of economic reforms in agriculture and water management, dated December 25, 2009 brought in a number of amendments and addenda in the Uz Law on Water and Water Use. For example, such concepts were introduced as «**water consumption**» and «**water use**». In this respect Article 21-1 presents the types water use purposes.

«By its purpose-oriented use the water consumption can be for drinking, household, medical, resort, recreational, fishery, industrial, energy, agricultural

and other purposes. Depending on the quantity of water withdrawn from a watercourse the water consumption can be general and special.

General water consumption is the use of water by people in order to satisfy their personal drinking, household, recreational, medical needs, as a watering place for livestock and other needs without exploitation of special constructions and devices that could impact the state of waters and water bodies.

Special water consumption is the water consumption which is done by legal entities and physical persons with the help of special constructions and devices that impact the state of waters and water bodies. In some cases water consumption without exploitation of special constructions and devices can be referred to the special water consumption type if the process impacts the state of waters and water bodies.

Water resources are provided for consumption if the requirements stipulated by the legislation and regulations are complied with».

9. Water quality criteria		
9a	Parameter to assess water quality for specific types of water management	yes
9b	Parameter to analyse its physical and chemical properties	yes
9c	Parameter to choose the technological scheme of water purification	yes
9d	Parameter to make the feasibility report for construction of water intake stations	yes

Comments to 9a

A source of water supply should be selected with the account of its sanitary reliability and ability to supply water of satisfactory quality which meets O'z DSt 951: 2000 requirements «Centralised sources of drinking water supply. Hygienic, technical requirements and selection procedures». The suitability of a water body as a source for drinking water is established on the basis of a sanitary assessment of groundwater formation and occurrence conditions; sanitary assessment of a surface source of water supply and the adjacent zone above and below water intake stations along the current; water quality and quantity assessment at the source of water supply; sanitary assessment of the site of water intake constructions; and the forecast of the sanitary state of a water source.

Comments to 9b

Water composition of freshwater underground and surface sources of water supply should correspond to following requirements: solid residue $\leq 1,500$ mg/L; content of chlorides ≤ 250 mg/L (~350 mg/L is allowable); content of sulphates ≤ 400 mg/L (~500 mg/L is allowable); hardness ≤ 7 mg/L (~10 mg/L is allowable). The concentration of chemical substances in the water of such sources should

not exceed the MPCs set for the water intended for drinking, recreational and community purposes, as well as the norms of radiation safety.

Comments to 9c

Depending on the water quality and demanded purification level to meet the requirements of GOST and O'z DSt 950: 2000 «Drinking water. Sanitary requirements and quality control» water bodies suitable as sources of drinking water supply are divided into 3 classes. The sources of water supply are referred to a particular class by their special programme assessment results and water quality laboratory analysis data.

Comments to 9d

Each separate water source have its water treatment scheme and the list of required reagents set on the basis of the preliminary technological research or the other facilities' best practice under similar conditions and pursuant to recommendations on each class of a water source separately.

10. Integral statistical eco-indices for water quality assessment		
10a	Organoleptic indicators (odour, smell), physical indicators (temperature, bogginess), pH value	yes
10b	Hydrochemical water purity index (WPI) and hydrobiological saprobic index S	yes
10c	Chemical (ionic) water composition, main anions and cations	yes
10d	Sanitary and toxicological indicators	yes
	Other, please specify	

Comments

Pursuant to O'z DSt 950: 2000 «Drinking water. Sanitary requirements and quality control» indicators of water quality standards are subdivided onto microbiological, parasitological, toxicological (non-organic and organic components), organoleptic, and indicators of radioactive pollution (frequency of monitoring is established by the local administration in view of the radiation environment, but not less than once a year).

11. Obligatory elements for water purity index WPI calculation:		
11a	Dissolved salt content, main anions and cations, hydrocarbonates	yes
11b	Permanganate oxidability, solid residue, nitric compounds	yes
11c	Nitric group, including nitrites and nitrates, phosphorus, chemical consumption of oxygen	yes
11d	Dissolved oxygen, pH value, biological consumption of oxygen BOD5	yes
	Content of heavy metals	

Comments

Basically, the quality of surface water purity is defined by 20 components, i.e. oxygen, BOD₅, COD, nitrogen ammonium, nitrogen nitrite, nitrogen nitrate, iron, copper, zinc, phenols, mineral oil, Synthetic Surfactants (SS), suspended solids, DDT, alpha-HCH, gamma-HCH, chrome, fluorine, arsenic, and mineralization.

12. GOSTs setting general requirements to preparation, transportation and storage of water samples		
12a	GOST 17.1.5.05-85 Nature protection. Hydrosphere. Mechanisms for selection of samples of surface and sea waters, ice and atmospheric precipitation. General specifications	yes
12b	GOST 17.1.5.04-81 Nature protection. Hydrosphere. Instruments and devices for selection, primary treatment and storage of natural water samples. General specifications	yes
12c	HBH 33-5.3.01.85 Instruction on wastewater sampling for analysis	yes
12d	O'z DSt 950: 2000 «Drinking water. Sanitary requirements and quality control»	yes
	Other, please specify	

Comments

GOST 17.1.5.05-85 applies to surface and sea waters, ice of water bodies and watercourses, sea and glacial ice and precipitation. The standard establishes the general mechanisms for selection of samples to define their chemical structure and physical properties at organizing the state quality control of water, ice and precipitation.

GOST 17.1.5.04-81 applies to all types of developed and produced devices and equipment for selection, primary processing and storage of natural water samples for chemical analysis. The standard does not apply to equipment and devices for sampling rainfall runoff and water from pipelines; for selection and processing of natural water samples for bacteriological and hydrobiological analyses.

HBH 33-5.3.01.85 establishes requirements to methods of wastewater selection for analysis. The instruction applies to wastewater of companies, certain businesses, workshops, installations, treatment facilities, recycling water supply and water drain system, bilge water containing polluting substances in a dissolved form and in suspension.

O'z DSt 950: 2000 Water supply sources quality control in water intake stations is carried out pursuant to the requirements of O'z DSt and Uz SC «Hygienic and sanitary requirements to centralised sources of domestic and drinking water supply. Selection procedures». The list of monitored indices is

established by type of analyses with the account of the type and class of a water supply source, as well as local environmental and sanitary conditions.

13. Is the use of disposable containers allowed for sampling?	yes
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Comments

The work is executed pursuant to GOST 17.1.5.04-81 Nature protection. Hydrosphere. Instruments and devices for selection, primary treatment and storage of natural water samples. General specifications which stipulate the following requirements:

- water samples storage devices should ensure invariance of water composition and properties from the moment of sampling to the analysis;
- natural water samples storage containers should be tightly closed and made of chemically proof material;
- water samples storage container should be of 0.25; 0.5; 1; 3; 5; 10; 20; 30 and 50 L capacity;
- to organize their transportation the containers with devices should be put in a box or crate ensuring their safety in winter and summer conditions.

14. To store samples containing photosensitive components (including seaweed), the following containers are used			
14a	Tight, plastic, glass-stoppered or from polymeric materials	yes	
14b	Jars or large open-mouthed bottles, containers from borosilicate or soda-lime glass		no
14c	Made of lightproof or safelight glass with their subsequent placing in lightproof crates for the whole period of storage	yes	
14d	Made of chemical-resistant glass, pure (preferably sterile) containers with tightly closed caps	yes	
	Other, please specify		

Comments. Pursuant to HBH 33-5.3.01.85 Instruction on wastewater sampling for analysis

Containers for storage of samples should be made from glass or polyethylene, be glass-stoppered or have tightly closed caps. The use of cork and rubber stoppers can be allowed if the analysed sample does not contain mercury, silver, ozone, organoleptic substances and the analysis of BOD5 and COD is not required. Samples for BOD5, COD and mineral oil are taken only in glassware. Storage of wastewater samples is allowed only if the in-situ

analysis is not possible. However, the storage time should be strictly observed. In order to extend the water storage stability in the state it was at the moment of sampling, it should be preserved.

15. To take spot samples on the set depth of a water body the following devices are applied		
15a	Monometer	yes
15b	Water sampler	yes
15c	Barometer	yes
15d	Bottom sampler	yes
	Other equipment, please specify	

16. General requirements to the quality monitoring procedure and methods are regulated by		
16a	GOST 17.1.5.05-85 Nature protection. Hydrosphere. Mechanisms for selection of samples of surface and sea waters, ice and atmospheric precipitation. General specifications	yes
16b	GOST 17.1.5.04-81 Nature protection. Hydrosphere. Instruments and devices for selection, primary treatment and storage of natural water samples. General specifications	yes
16c	O'z DSt 950: 2000 «Drinking water. Sanitary requirements and quality control»	yes
16d	O'z DSt 8.004: 2004. Physical properties of materials and substances: Standard samples. General specifications	yes

Comments

O'z DSt 8.004: 2004 applies to standard samples of physical properties of substances and materials, including sample gas mixes, and establishes general requirements to the procedures of their development, adoption, registration, dissemination and application.

To ensure the unity of measurements the standard samples are applied for checking, calibration, metrological certification, graduation of measuring apparatuses, and supervision of metrological characteristics during their testing, including for the purpose of defining their type; metrological certification of measuring techniques; control of precision of measuring techniques in the course of their application in accordance with the set algorithms; for other types of metrological supervision.

17. Pursuant to the Law on Water and Water Use supervision is executed in the sphere of water resources management		
17a	At level of the ministries and departments	yes
17b	International, territorial, local	yes
17c	Equatorial, basin and inter-basin	yes
17d	State, industrial and public	yes
	Other, please specify	

Article 10. Public participation of water users' associations, other non-governmental non-commercial organisations, and the general public in implementation of actions on efficient use and protection of water and water bodies.

«Water consumers' associations, other non-governmental non-commercial organisations, pursuant to their charters, and the general public assist state agencies in implementation of actions on efficient use and protection of waters and water bodies. In the process of this work the state agencies can consider the proposals of water consumers' associations, other non-governmental non-commercial organisations, and the general public».

18. What state organisation supervises water quality of water bodies		
18a	The State Committee for Nature Protection of the Republic of Uzbekistan	yes
18b	The Centre of Hydrometeorological Service at the Cabinet of Ministers of the Republic of Uzbekistan	yes
18c	The Ministry of Agriculture and Water Management of Uzbekistan	yes
	The State Committee for Geology and Mineral Resources of the Republic of Uzbekistan	yes
	The Ministry of Public Health of the Republic of Uzbekistan	yes

Comments

Regulations for the National Environmental Monitoring in the Republic of Uzbekistan (№ 111 dated 03.04.2002).

The National Environmental Monitoring is executed:

- The State Committee for Nature Protection of the Republic of Uzbekistan (GosComPriroda) – monitoring sources of pollution and monitoring land ecosystems;
- The Centre of Hydrometeorological Service at the Cabinet of Ministers of the Republic of Uzbekistan (UzHydroMet) – monitoring the state of pollution, surface (natural watercourses) waters and background monitoring;

- The Ministry of Agriculture and Water Management of Uzbekistan – monitoring collector-drainage water qualities (mineralization) in main collectors;
- The State Committee for Land Resources, Geodesy, Cartography and State Cadastre of the Republic of Uzbekistan (GosComZem-GeodezCadastre) – regarding monitoring of land pollution;
- The State Committee for Geology and Mineral Resources of the Republic of Uzbekistan (GosComGeologiya) – monitoring groundwater pollution;
- The Ministry of Health Protection of the Republic of Uzbekistan (Ministry of Health) – sanitary and epidemiologic surveillance.

19. Official data on water quality in water bodies can be found in		
19a	UzHydroMet Surface Water Quality Bulletin	yes
19b	The Newsletter on operational water supply, groundwater intake and level of pollution control (GosComGeologiya)	yes
19c	The National Report on Environmental State and Use of Natural Resources in the Republic of Uzbekistan	yes
	Other, please specify. The Internet site of GosComPriroda of the Republic of Uzbekistan www.uz.uznature.uz	yes

20. Does the population have an access to the official data on water quality in water bodies?	yes
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Access procedures. Describe. Comments.

The Internet site of GosComPriroda of the Republic of Uzbekistan: www.uz.uznature.uz

The Analytical Control State Committee for Nature Protection (GosSIAK) includes the Standardization and Metrology department which files all nature protection laws, regulatory and supervising documents and governmental orders, etc. In accordance with the established procedure all users of natural resources can have an access to the specified documents. Besides, environmental issues are published in the «Eco-bulletin».

21. What other agencies supervise water quality according to the Water legislation?			
21a	Companies, water users	yes	
21b	Public organisations		no

Comments

The Law of the Republic of Uzbekistan on Water and Water Use

Article 31 and 32-1 Rights of water users and water consumers «... have the right to: control the quantity and quality of the water supply; ... »

Regulations for the National Environmental Monitoring in the Republic of Uzbekistan, Art. 12: «The National Environmental Monitoring is executed: ... by the Ministries, departments and executive agencies which activity results in or can lead to deterioration of the environment ...»

22. Do water users supervise water quality in water facilities of an enterprise?		
22a	<p>The Law of the Republic of Uzbekistan on Nature Protection</p> <p>Article 32. Departmental, industrial and public control in the sphere of nature protection</p> <p>«The departmental control in the sphere of nature protection is executed by the environmental service of the ministries, state committees and departments over the activity of the subordinate companies and organisations.</p> <p>Industrial control in the sphere of environment protection is executed by the environmental service of companies, associations and organisations, and is aimed at monitoring the implementation of nature protection programmes and individual projects, the efficient use and recreation of natural resources, improvement of the environment, and observance of the nature protection legislation.</p> <p>Public control in the sphere of the environment protection is executed by public associations, employees of companies and citizens.</p>	yes
22b	<p>The Law of the Republic of Uzbekistan on Nature Protection</p> <p>Article 28. Environmental monitoring</p> <p>To ensure environmental monitoring, control, assessment and forecast in the Republic of Uzbekistan the system of the National Environmental Monitoring (NEM) was created.</p> <p>Environmental monitoring and control over the use of natural resources is executed by competent authorities, companies, organisations and establishments which activity results in or can lead to deterioration of the environment.</p> <p>Competent authorities and specified companies, organisations and establishments are to submit monitoring data to the relevant state agencies free of charge.</p> <p>The structure, content and monitoring procedure are developed by the State Committee for Nature Protection of the Republic of Uzbekistan and endorsed by the Cabinet of Ministers of the Republic of Uzbekistan.</p>	yes
22c	Sometimes, if there were directives from nature protection organizations	yes

23. What agencies analyse the monitoring reports of the water users' companies?		
23a	NGOs and independent experts	no
23b	Local authorities	no
23c	Authorised agency of GosComPriroda of the Republic of Uzbekistan	

Comments

The Law of the Republic of Uzbekistan on Nature Protection

Article 30. The National Environmental Monitoring

«The purpose of the National Environmental Monitoring is surveillance of physical, chemical, biological processes, levels of air, soil, surface and groundwater pollution, impact of pollution on flora and fauna, distribution of current and emergency information on environmental changes and forecasts among all the stakeholders and the population.

The information on the state of the environment is open source and its basic indices are regularly published by the relevant state nature protection agencies in the mass media.

The state nature protection agencies must immediately inform the public of disasters and other accidents which led to the pollution of the environment above permitted levels.

The state cadastres of natural resources are designed to keep account of quantitative, qualitative and other characteristics of natural resources, their amount and regimes of their use.

Subject to monitoring and assessment are also the objects that affect or can have adverse impact on the state of the environment, as well as types and quantity of harmful substances getting into the environment, volumes and structure of wastes.

The structure, procedure and activity of the National Environmental Monitoring, the institutional procedures for administering the state cadastres of natural resources, Government Accounting of the environmentally hazardous objects are established by the Cabinet of Ministers of the Republic of Uzbekistan».

Regulations for the National Environmental Monitoring in the Republic of Uzbekistan (Decision of the Cabinet of Ministers of the Republic of Uzbekistan №111 dated 03.04.2002)

Art.12 «... The activity of the ministries, departments and executive agencies in the sphere of the National Environmental Monitoring is coordinated by the State Committee for Nature Protection of the Republic of Uzbekistan»;

Art. 14 «Monitored data is synthesized by the Information Analysis Centre under GosComPriroda Uzbekistan, and departmental information analysis divisions (services) of the relevant ministries, departments and agencies ...».

24. GOSTs establish the sampling sites and the frequency of sampling in accordance with			
24a	O'z DSt 950: 2000 «Drinking water. Sanitary requirements and quality control» Appendix 1 «Types, content and frequency of analyses carried out in order to monitor water quality of water supply sources at water intake stations» are calculated with account of the population supplied with potable water from these water intake stations, as well as the type and content of the analyses. (short-cut, bulk physical and chemical, special virological and parasitologic, special toxicological, special radiation). Pursuant to Instruction on wastewater sampling for analysis HBH 33-5.3.01-85 «Terms and frequency of sampling in any programme can be reliably defined only after a thorough preparatory work with a high frequency of sampling and statistical data processing. If random changes prevail the terms of sampling are of little relevance, except for special cases. If cyclic fluctuations occur, such terms are chosen to cover the whole cycle or to define the maximum and minimum values. If directional changes in composition occur, sampling is done regularly in equal intervals».	yes	
24b	MPD definition procedure		no
24c	The research programme depending on the water body		no

Other HBH 33-5.3.01.85 Instruction on wastewater sampling for analysis, GOST 17.1.5.05-85 Nature protection. Hydrosphere. «The sampling site is chosen in view of the purpose of monitoring, character of wastewater discharge, and in accordance with the sewage engineering design. Frequency of sampling is defined by the purpose of the research. Terms of sampling are established with the account of the wastewater regime and composition at each company separately».

GOST 17.1.5-05.85 Nature protection. Hydrosphere. Mechanisms for selection of samples of surface and sea waters, ice and atmospheric precipitation. General specifications. «The sampling programme is developed to define the chemical composition and physical properties of water. It sets the list of parameters; sampling site requirements; periodicity and frequency of sampling, and if required, statistical sampling data manipulation in order to define the optimum frequency of monitoring and sampling. The sampling method is defined by water type, sampling depth, purposes of the analysis and the list of parameters».

25. General requirements to sampling equipment are defined in			
25a	GOST 17.1.5-05.85 Nature protection. Hydrosphere. Mechanisms for selection of samples of surface and sea waters, ice and atmospheric precipitation. General specifications	yes	
25b	GOST 17 17.1.5.04-81 Nature protection. Hydrosphere. Instruments and devices for selection, primary treatment and storage of natural water samples. General specifications	yes	
25c	HBH 33-5.3.01.85 Instruction on wastewater sampling for analysis	yes	
	O'z DSt 950: 2000 «Drinking water. Sanitary requirements and quality control»	yes	
26. Key water quality terms and definitions are presented in			
26a	GOST 25151-82 Water supply. Terms and definitions	yes	
26b	GOST 17 17.1.3.08-82 Nature protection. Hydrosphere. Sea water quality control	yes	
26c	GOST 27065-86 Water quality. Terms and definitions	yes	
28d	Eco-encyclopaedia which will contain ecological and environmental terms and definitions is being compiled	yes	
27. Water quality (analysis) is assessed in the laboratories			
27a	State-run	yes	
27b	Private		no
27c	Certificated, regardless their form of property	yes	

Comments

O'z DSt 950: 2000 «Drinking water. Sanitary requirements and quality control». Water quality monitoring and assessment of its conformity with the established requirements is carried out in water intake stations, from water supply sources before its inflow into a distributive network and in the distributive network. Frequency and type of analyses of water samples executed by the SES agencies are defined by special plans and schedules of water quality monitoring and assessment, special instructions of the Ministry of Health adopted in accordance with the established procedure.

28. Safety of water quality			
28a	O'z DSt 950:2000 «Drinking water. Sanitary requirements and quality control» Potable water must be epidemiologically and radiationally safe, chemically harmless and have favourable organoleptic properties.	yes	

	Industrial water quality in the centralised drinking water supply systems is monitored by local and central (base) laboratories of the water supply companies, duly certified (accredited) re their competence.	
28b	GOST 17.1.5-05.85 Nature protection. Hydrosphere. Mechanisms for selection of samples of surface and sea waters, ice and atmospheric precipitation. General specifications.	yes

29. Is it possible to change the water quality standards		
29a	Yes, sanitary and epidemiologic water quality norms and regulations are adopted by the Ministry of Health. Water quality standards are registered by the State standards of Uzbekistan upon coordination with the relevant departments.	yes

Comments to 29a. At present the country implements the «Water supply and sewerage network development and modernisation framework in the Republic of Uzbekistan for 2009-2020» which demanded modification and addenda in the current standard O'z DSt 950: 2000 «Drinking water. Sanitary requirements and quality control». The issues are under the competence of the Scientific research institute of Sanitation, Hygiene and Occupational Diseases under the Ministry of Health of the Republic of Uzbekistan.

30. What official document presents the list of analysed substances in water		
30a	GOST 17.1.3.07-82 Nature protection. Hydrosphere. Water quality control regulations at water bodies and watercourses. Interstate standard.	yes
30b	GOST 17.1.1.02-77 Nature protection. Hydrosphere. Classification of water bodies. Interstate standard.	yes
30c	«The list of Maximum Permissible Concentration (MPC) and estimated safe exposure level (ESEL) of harmful substances for the water in fishery water body», Moscow, 1990	

Comments

The work is organized with the use of «Overall list of maximum permissible concentration (MPC) and approximate safe levels of impact of harmful substances for waters of fishery water bodies». Moscow, 1990.

31. The list of analysed substances		
31a	The list of analysed water quality indicators for water bodies and watercourses is established with the account of: <ul style="list-style-type: none"> • the target use of a water body or a waterway • the composition of dumped wastewater • the needs of the information consumers 	yes

31b	If new sources of pollution emerge, or there is change in capacity, composition and conditions of wastewater disposal of former sources and other developed conditions, then the category of the monitoring site, frequency of monitoring and the list of defined water indicators can be reviewed in accordance with the established procedure.	yes
31c	Stakeholders are provided with regular itemized water quality data for water bodies and watercourses and data on possibility of their change due to economic activities and hydrometeorological conditions in accordance with the established procedure.	yes

Comments

O'z RH 84.3.7: 2004 «The procedure for development and registration of the draft norms of maximum permissible pollutants disposal in water bodies and into and onto land is executed in view of technically feasible indices of wastewater treatment. Norms of maximum permissible disposals (MPD) of harmful substances are established separately for each source of pollution, in view of inadmissibility of exceeding the maximum permissible concentration of harmful substances in water bodies and violation of conditions of its purpose-oriented use.

When wastewater is disposed in the water bodies used for drinking and household purposes, if the norms of water quality are exceeded or its natural structure and properties violated, they should anyway be maintained in waterways starting from the river station located 1 km along the current above the nearest point of water use (water intake for economic and drinking purposes, balnearies and recreational places, territories of settlements, etc.) up to the place of water use, and in water bodies – in the basin of a 1-km radius from the water use point.

The water purity is controlled by 20 components which characterise basic industrial pollution in the Republic of Uzbekistan, namely: COD, BOD₅, pH, suspended solids, mineralization, ammonium nitrogen, NO₂⁻, NO₃⁻, PO₄³⁻, ether-soluble substances, mineral oil, Synthetic Surfactants (SS), phenol, fluorine, arsenic, iron, Cr (VI), Cu, Zn, Pb. The number of indicators can be increased if specific pollutants are present in wastewater of water bodies.

32. What entities have the right to bring in changes to the list of analysed substances			
32a	Water fund use and protection authority.	yes	
	Water users		no

33. Can GOSTs be amended, what is the procedure, who makes decisions, how is it introduced?

33a	Amendments into GOSTs are introduced in accordance with the legislation. GOSTs are established for a certain term. Due to expiry or issuance/adoption of the new standard previous GOSTs can be cancelled. Consideration, endorsement, amendment and introduction are also executed by competent authorities.	yes
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Another

34. Is there a need for new standards?

34a	Standards of water quality management are perfect. Still there is a need for the unified standards that take into account regional conditions.	
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35. State agencies can involve the general public and public associations to develop programmes and implement actions on efficient water fund use and protection

35a	It is stipulated by the Law on Water and Water Use Article 10. «Water consumers' associations, other non-governmental non-commercial organisations, pursuant to their charters, and the general public assist state agencies in implementation of actions on efficient use and protection of waters and water bodies. In the process of this work the state agencies can consider the proposals of water consumers' associations, other non-governmental non-commercial organisations, and the general public».	yes	
35b	Can, and involve	yes	
35c	Can, but do not involve		no
	Other		

36. Name and competences of state agencies authorized to implement and control the use and protection of water resources

The State Committee for Nature Protection of the Republic of Uzbekistan is subordinate to the Senate (Oliy Majlis) of the Republic of Uzbekistan and supervises the observance by the ministries, state committees, departments, companies, establishments and organisations, as well as individual persons, of the legislation in the sphere of use and protection of land, subsoil, waters, forests, fauna and flora, and atmospheric air.

The competences of the State Committee for Nature Protection of the Republic of Uzbekistan are defined by the Regulations endorsed by the Senate (Oliy Majlis) of the Republic of Uzbekistan.

Decisions of the State Committee for Nature Protection of the Republic of Uzbekistan adopted within its competence are binding for all state agencies, companies, establishments, organisations and the population. «On Nature Protection».

The state water use and protection control is executed by local authorities, the State Committee for Nature Protection of the Republic of Uzbekistan, the State Inspection for Supervision of Geological Study of Subsoil, Safe Work in Industry and Mining at the Cabinet of Ministers of the Republic of Uzbekistan, the Ministry of Public Health of the Republic of Uzbekistan, the Ministry of Agriculture and Water Management of Uzbekistan as established by the legislation. Departmental water management is carried out by the agencies of the State Committee for Geology and Mineral Resources of the Republic of Uzbekistan. The Law of the Republic of Uzbekistan on Water and Water Use.

Other

Competences of local authorities

- define key directions of water resources use and protection in their territory;
- ensure law and order in the sphere of water resources management and protection;
- monitor and assess the state of water bodies; control water use and protection, and compliance with the set water intake norms and standards, administer water users' reports on the water use;
- execute measures to preserve and improve the state of water bodies, prevent and mitigate hazards and pollution of waters, restore the objects damaged as a result of accidents, floods, mudflows and natural disasters;
- tackle other issues stipulated by the legislation.

The State Inspection for Supervision of Geological Study of Subsoil, Safe Work in Industry and Mining at the Cabinet of Ministers of the Republic of Uzbekistan – Thermal and mineral waters.

The Ministry of Public Health of the Republic of Uzbekistan – Sanitation and hygiene environmental monitoring.

The Ministry of Agriculture and Water Management of Uzbekistan – Surface waters and collector-drainage waters.

Agencies of the State Committee for Geology and Mineral Resources of the Republic of Uzbekistan – Groundwater.

37. Structural divisions of the state agencies authorized to implement and control the use and protection of water resources.

GosComPriroda of the Republic of Uzbekistan has the following departments and agencies: GosComPriroda of the Republic of Karakalpakstan; Tashkent municipal and regional committees on nature protection located in the regional centres (the Tashkent regional committee for nature protection is located in Tashkent), the latter have district and town divisions. Coordination of water efficiency and water protection activity is executed by GlavZemVodControl.

A similar system exists within the water resources management and protection administration and control departments.

Other

Comments Research organisations of GosComPriroda of the Republic of Uzbekistan: Tashkent research institute «VodGeo», Research Institute «Atmosphere», NGO Institute «Ecology of Water Resources», Scientific centre «Eco-energy»		
38. The purposes of control (under the Water legislation) in the sphere of water fund use and protection		
38a	monitor the quantitative and qualitative state of water resources	yes
38b	monitor the state and change of water resources as a result of economic and other activity and supervise implementation of water protection measures	yes
38c	monitor hydrochemical and hydrobiological indicators of water quality	yes
Comments The Law of the Republic of Uzbekistan on Water and Water Use Article 1. The purpose and primary goals of the Law is regulation of water relations. «The primary goal of the Law is to regulate water relations, ensure rational water use for the needs of the population and the national economy, protection of waters from pollution, contamination and depletion, prevention and mitigation of harmful impact of water, improvement of water bodies' condition, and protection of rights and legitimate interests of companies, businesses and organisations, farmers, peasants and the population in the sphere of water relations».		
39. Physical persons have the right to address state agencies and organisations with inquiries, complaints, statements and proposals on the use and protection of water bodies and demand their consideration.		yes

Comments

The Law of the Republic of Uzbekistan on recourse of nationals

Article 3. The right of nationals to recourse

«Nationals of the Republic of Uzbekistan have the right to address state agencies with statements, proposals and complaints.

Realisation by nationals of their right to recourse should not break the rights, freedom and legitimate interests of other persons, the society and the state.

Nationals of foreign states and stateless persons have the right to address state agencies of the Republic of Uzbekistan under this Law.

Relations in the sphere of recourse of nationals to autonomous bodies of nationals are regulated in the order established by this Law.

The recourses of nationals are not subject to consideration under this Law if legislative acts stipulate different order of their consideration».

Article 17. Consideration of recourses of nationals

«Recourses of nationals which came in the state agency are considered by this agency or an official appointed to consider such recourses.

The recourses of nationals directed to the state agency which is incompetent to consider the raised issues, redirect the recourses to relevant agencies in not later than five days, and informs the national of this fact. It is forbidden to redirect the recourse for consideration by other state agencies on no grounds or redirect them to those state agencies or officials whose decisions or actions will be appealed against. If the recourses of nationals lack necessary data to be redirected to relevant authorities, they are returned back to the national within the same period with a well-reasoned explanation.

In case there is a need for additional data, inquiries and materials for a comprehensive and objective consideration of the recourse of nationals, the official of the state agency who considers this recourse, can collect additional information.

If required the state agency considering the recourse of nationals, should ensure its consideration in-situ.

In certain cases, when consideration of the recourse is impossible in absence of the addressee or another person, the latter can be called by the official of the state agency.

Decisions on the recourses of nationals are signed by the head or other authorised officials of the state agency.

If in order to make decisions on the issues stated in a statement, a proposal or a complaint, there is a necessity to check the activity of managing subjects, it is executed in accordance with the legislation.

<i>40. Physical persons have the right to demand administrative or judicial cancellation of decisions on location, construction, reconstruction and start-up of the companies and other constructions which are not meeting the requirements in the sphere of water fund use and protection, and on restriction and termination of economic and other activity of physical and legal entities that have an adverse impact on water bodies</i>	yes
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Comments

The Law of the Republic of Uzbekistan on ecological expertise

Article 23. Public ecological expertise

«The public ecological expertise can be executed at the initiative of non-governmental non-commercial organisations and the general public in any field

of activity which requires environmental impact assessment. It is forbidden to interfere with the execution of the public ecological expertise.

The public ecological expertise can be executed independently of the state ecological expertise.

The conclusion of the public ecological expertise is voluntary».

The Law of the Republic of Uzbekistan on Water and Water Use

Article 32-1. The rights of water consumers

«Water consumers have the right to: control the quantity and quality of the water supply; demand indemnification of the water not duly received under the water use contract, except for the cases stipulated in the legislation; participate in decision-making on water resources management; propose to review the water intake norms in view of their own needs; form associations (unions) and other organizations to coordinate their activity in the sphere of water relations, and represent and protect their common interests; claim damages caused by violations of their rights and legitimate interests, including the right to water in accordance with the water intake norms and water delivery regime as stipulated by the legislation. Water consumers can have other rights hereunder».

41. Representatives of public associations can participate in the work of basin councils.	yes
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Comments

The Law of the Republic of Uzbekistan on Water and Water Use

Article 32. The rights of water users

«Water users have the right to: use water objects only according to their intended purposes; construct and reconstruct buildings, installations, and other objects for the use of water as set by the Law; control the quantity and quality of the water supply; demand indemnification of the water not duly received under the water use contract, except for the cases stipulated in the legislation; participate in decision-making on water resources management; propose to review the water intake norms pursuant to the forecast and actual water content of the source; claim damages caused by violations of their rights and legitimate interests, including the right to water in accordance with the water intake norms and water delivery regime as stipulated by the legislation. Water users can have other rights hereunder».

42. Public associations can execute the public control in the sphere of water fund use and protection at their own initiative	yes
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Comments

The Law of the Republic of Uzbekistan on ecological expertise

Article 23. Public ecological expertise

«The public ecological expertise can be executed at the initiative of non-governmental non-commercial organisations and the general public in any field of activity which requires environmental impact assessment. It is forbidden to interfere with the execution of the public ecological expertise.

The public ecological expertise can be executed independently of the state ecological expertise.

The conclusion of the public ecological expertise is voluntary».

43. The public control procedure in the sphere of water fund use and protection is defined		
43a	Pursuant to charters of public associations, their purposes and tasks in the sphere of water fund use and protection	Yes. In coordination with the authorised state agencies
43b	By public associations pursuant to their charters upon coordination with the state control agencies authorised in the sphere of water fund use and protection.	Yes. In coordination with the authorised state agencies
43c	By public associations pursuant to their charters independently of the state control agencies authorised in the sphere of water fund use and protection.	no

Comments

The Law of the Republic of Uzbekistan on Nature Protection

Article 27. Public ecological expertise

«The public ecological expertise is executed by independent expert groups at the initiative of public associations at their own expense or on a voluntary basis.

The conclusion of the public ecological expertise is voluntary.

Article 32. Departmental, industrial and public control in the sphere of nature protection

«... Public control in the sphere of the environment protection is executed by public associations, employees of companies and citizens.

The procedures and policies of departmental, industrial, ecological services and of the public ecological control are regulated by this Law and their regulations».

The Law of the Republic of Uzbekistan on ecological expertise

Article 24. Environmental audit

«Environmental audit – independent ecological expertise of operating plants and other objects, which adversely affect the state of the environment, legally carried out by environmental auditors (firms) in accordance with the legislation.

The environmental audit is executed under the decision of the proprietor of the object of an economic and other activity».

44. The Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Helsinki, Finland, March 17, 1992		
44a	Ratification year, No. of Resolution August 9, 2007 № ПП-683	yes
44b	Non-Annex I Party	

Comments

Decision of the President of the Republic of Uzbekistan № ПП-683 dated August 9, 2007 on ratification of the international agreements. Pursuant to Article 21 of the Law of the Republic of Uzbekistan on the International agreements of the Republic of Uzbekistan 1. Ratify: the Convention on protection and use of transboundary watercourses and the international lakes (Helsinki, March 17, 1992); the Convention on the Law of Non-Navigational Uses of International Watercourses (New York, May 21, 1991) ...

45. Joint monitoring and assessment of the state of waters is executed within the framework of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, Finland)		
45a	The countries develop and jointly implement transboundary water resources monitoring programmes	yes
45b	The countries develop and independently implement transboundary water resources monitoring programmes	yes
45c	The countries do not develop and do not implement any monitoring programmes on transboundary water resources	no

Comments

The National Environmental Action Programme in the Republic of Uzbekistan for 2008-2012 endorsed by Decision of the Cabinet of Ministers of the Republic of Uzbekistan №212 dated 19.09.2008 stipulated a number of actions for execution. For example, the national monitoring of groundwater and the level of water pollution. Validation of special monitoring networks in the transboundary zones of fresh, mineral, thermal and industrial waters; implementation of the programme of joint actions to ensure rehabilitation of the zones of tailing dumps and refuse areas within the transboundary territories of the Central Asia countries, endorsed by the decision of the Council of Prime-ministers of the Central Asia states on 17.06.1999; periodic inspections of tailing dumps and refuse of off-balance ores of Mayлуу-Suu, Sumsar, Shekaftar and Kadamjay; monitoring of the heavy metals and radionuclides concentration in waters of the rivers Mayлуу-Suu, Sumsar and Shakhimardan in the transboundary territories of the Kyrgyz Republic and the Republic of Uzbekistan; in cooperation

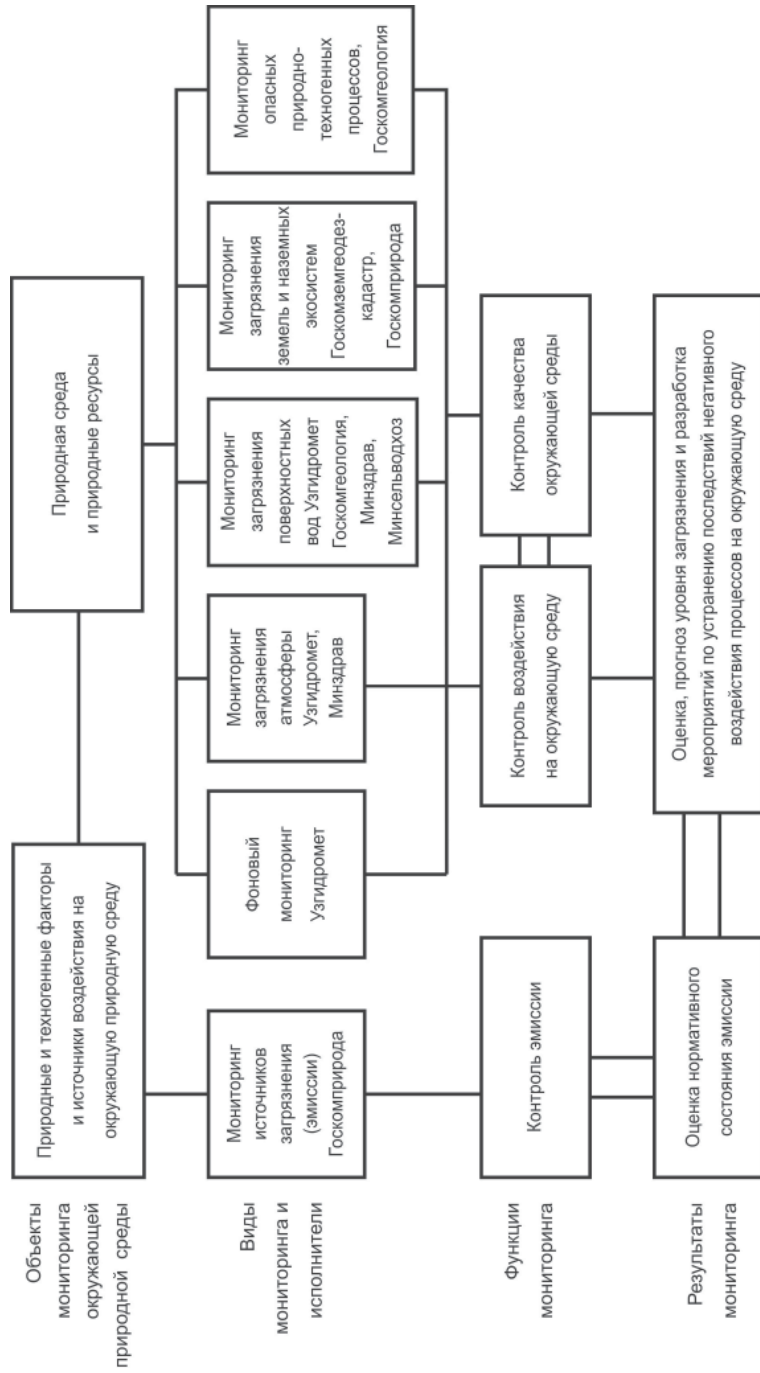
with the Kyrgyz Republic take action to prevent emergencies caused by floods and mudflows on the transboundary rivers Naryn, Kara-Darya, Tentaxai, Sokh, Shakhimardan, Akbura, Aravansai, Majлуу-Suu.

The NEM Programme in the Republic of Uzbekistan for 2006-2010 stipulates execution of activities to monitor the state of water resources of the transboundary rivers within the territory of Uzbekistan.

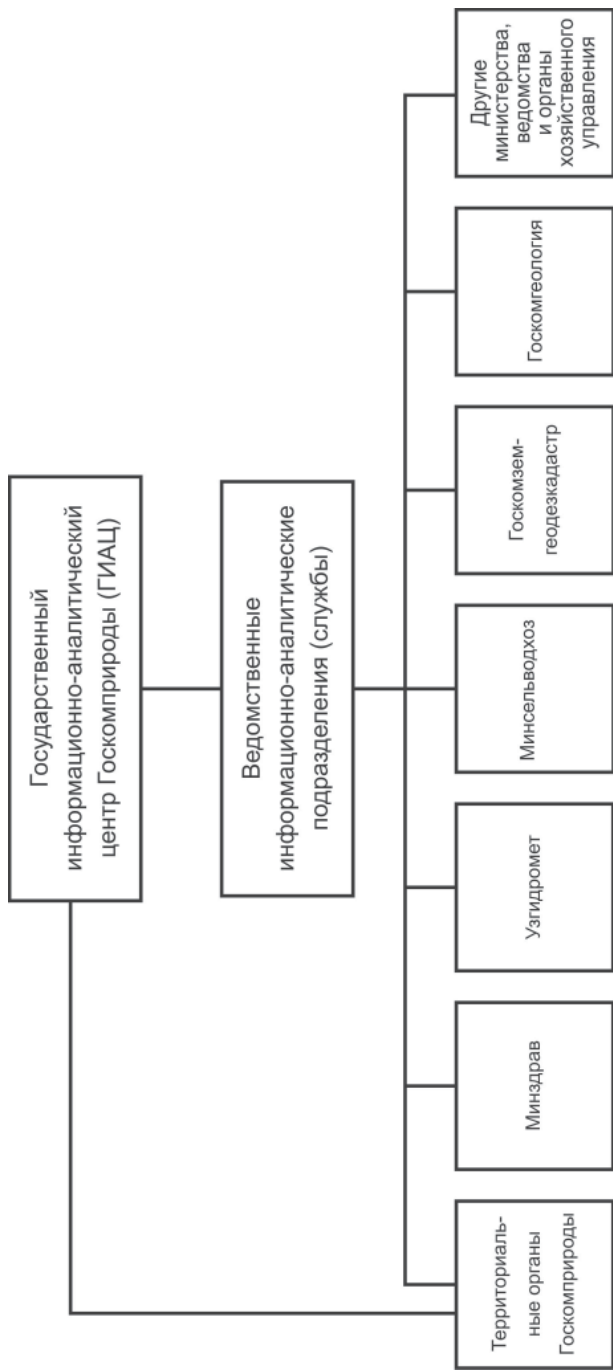
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3. Digest of regulatory legal acts on environment and nature protection (2008)
4. Regulations on the State Committee of the Republic of Uzbekistan for Nature Protection ratified by the Senate of the Republic of Uzbekistan (Oliy Majlis)
5. Index of legislative acts in the sphere of nature protection and use of natural resources (2007)
6. Index of standard and methodical acts in the sphere of nature protection and use of natural resources (2007)
7. Newsletter on the state of sources of pollution and their environmental impact on the territory of Uzbekistan (2009-2010)
8. Official data of UzHydroMet (ref. 01-15/830 dated 07.12.2010)
9. Official data of MAWM Uzbekistan (ref. 04/29-2057 dated 09.12.2010)
10. Official data of Ministry of Health of the Republic of Uzbekistan (ref. 05-7/3111 dated 07.12.2010)
11. Environmental Review of Uzbekistan (based on 2008 indices)

THE FUNCTIONING OF THE STATE ENVIRONMENTAL MONITORING IN THE REPUBLIC OF UZBEKISTAN



TRANSMISSION AND CONSOLIDATION OF THE STATE ENVIRONMENTAL MONITORING IN THE REPUBLIC OF UZBEKISTAN



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