

APPROACHES TO DEVELOPMENT OF THE STATE WATER CADASTRE IN THE REPUBLIC OF ARMENIA

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Total area of the country: 29,800 km²

River Basin: Kura-Araks

Number of river in country: 9480

Total length of rivers: 23000 km

Total average annual surface flow: 6250 m³

Flow from springs and groundwater: 3029 m³

Renewable surface water resources: 7190 million m³

(excluding Lake Sevan)

Annual use of water from transboundary rivers of Araks and Akhuryan: 940 million m³

Annual assessment of ground water: 4017 million m³
including 1595 million m³ originated as springs
and 1434 m³ discharged to rivers and lakes

Ground water inflow: 1193 million m³

Ground water outflow: 1068 m³.

Total annual flow of mineral water: 22 million m³
including 8.8 million m³ of high quality

Actually 0.05% of the total annual flow is being used for
bottling and medical purposes.

State Water Cadastre is a comprehensive information system, which will collect, store, analyze and combine data on water resources and systems coming from multiple sources as well as all associated data on legal and administrative aspects of water management as well as institutional responsibilities.

The cadastre system contains spatial and tabular data presented through maps and associated table forms, e.g. the following types of spatial information can be included in the Cadastre for water resources:

- Administrative data: state boundaries, regional borders, communities, major roads, railway, etc;
- Water bodies such as rivers, lakes, springs, groundwater resources, glaciers, etc.;
- Watershed boundaries;
- Water quantity and quality monitoring stations;
- Wastewater discharge points;
- Forests;
- Wetlands;
- Protected areas;

The cadastre on water systems can be developed on a basis of abose database with the following layers added to the initial system (other layers can be added once necessary):

- Type of strucure (dam, weir, canal, pump station, tunnel, well, pipeline, drainage system, etc.);
- Functional use (water supply, irrigation, hydropower generation, flood control, fish-farming recreation, etc.);
- Location;
- Technical parameters;
- Water demand;
- Importance of structure;
- Risk level in case of possible accident, and boundaries of at-risk zone;
- Entities responsible for management, operation, maintenance, protection.