

PRINCIPLES OF WASTE MANAGEMENT PLANNING EXEMPLIFIED BY THE ACTIONS IMPLEMENTED IN THE REPUBLIC OF DAGESTAN

Solid household waste management plans are developed to provide for the vital needs of local residents, to take care of the environment, and to save natural resources. A waste management plan designated for an extensive territory is a project comprising the following elements: the sequence of actions, the scope of waste collection and treatment actions; systems and methods of household waste collection, decontamination and processing; the number of collectors, collection procedure, and items of treatment machinery; the expediency of design, construction, reconstruction or expansion of waste management facilities, their basic specifications and location, as well as the capital investments to be made into construction, purchase and installation of waste management facilities.

A waste management plan may be designated for a separate inhabited locality and the whole region. Despite the above, regional plans are preferable. The regional waste management plan analyzed in this article is designated for the territory of the Republic of Dagestan. It was developed by the specialists of MosvodokanalNIIPROJECT in furtherance of the decree issued by the Ministry of Natural Resources of the Republic of Dagestan.

The top-priority objectives underlying the plan development included reduction of the overall amount of waste, its toxicity (and other harmful properties), increase in the share of waste recyclable into secondary raw materials, and phasedown of land-filling.

Identification of tentative locations of waste processing facilities requires preliminary land use planning, so that several municipal units or a group of settlements were serviced by a certain waste processing facility with account for the local terrain and climate, as well as reasonable waste transfer routes.

Waste handling scenarios embrace various advanced technologies and their combinations, as they consider the projected increase in the municipal waste production rate for the term of up to ten years. Selection of the optimum option is to be based on the principle that any waste handling system is to comply with local standards of living and potential fundraising efforts.

Any waste management plan designated for a region shall not exceed a term of five years, while projections may embrace up to 10 – 20 years. Any waste management plan developed for a territory may only be implemented in case of a well-coordinated cooperation between waste handling enterprises, local authorities and the local population.

Key words: solid household waste, plan of waste management for a territory, land use planning, household waste treatment systems.

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