

## The study of Changes in the composition of inorganic compounds of phosphate and nitrate in the lake behind Shahid Kazemi Dam (West Azarbaijan province)

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### Abstract

Changes in inorganic compounds of nitrate and phosphate in the water of Shahid Kazemi Reservoir (Bukan, West Azarbaijan province). The aim of this study was to determine the water quality of the Lake, especially in terms of the basic parameter of water quality assessment including soluble phosphate and nitrate. Sampling of Lake water was performed over a year (From April to March, 2015) on a monthly basis from 8 sites (each with 3 replications) from the entrance and exit of the Lake. The results showed that the maximum and minimum of phosphate (Mean±SE) were 1.493±1.303 mg/L in the autumn and 0.053±0.003 mg/L in the winter, respectively. Also, maximum and minimum of nitrate were 11±4.041 mg/L in the spring and 4±000 mg/L at autumn. Average changes in nitrate in spring and winter showed a significant difference among sites (P<0.05). Also, comparison of these averages for phosphate in spring, summer and winter showed a significant difference among sites (P<0.05).

**Keywords:** Bukan reservoir, Nitrate, Phosphate.