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Investigating the Aquatic Ecosystem of the Kenektok River in Quinhagak, Alaska

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Investigating the Aquatic Ecosystem of the Kenektok River in Quinhagak, Alaska*

Ashley Forbes, Noehealani Antolin, and Carolee Dodge Francis

Abstract

Water quality is defined by several characteristics: chemical, physical, biological, and radiological. Water quality is important in Alaskan communities due to the reliance of subsistence hunting like fishing to meet cultural and spiritual needs. A healthy aquatic system is achieved when water quality is not altered or disturbed. The objective of this project is to determine the water quality of the Kenektok River in Quinhagak, Alaska. The La Motte Water monitoring kit was used in this project to determine any chemical, physical, biological, and radiological disturbances. Three water samples were taken from different locations, approximately 1 meter apart, along the Kenektok River, and each were tested for coliform bacteria, dissolved oxygen, biochemical oxygen, nitrate, pH, turbidity, temperature, and phosphate. Across all testing sites, dissolved oxygen, biochemical oxygen, nitrate, pH, turbidity, phosphate was ranked good to excellent quality. However, each testing site was positive for coliform bacteria. Further investigation of these sites will be needed in order to confirm if the Kenektok River aquatic ecosystem has been disturbed.

KEYWORDS: Water quality; Kenektok River; aquatic ecosystem

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