

Alaska Department of Environmental Conservation

KENAI RIVER

FACT SHEET

January 2020



ISSUE –BACTERIA

Sampling along the Kenai River coastal beaches has indicated that there are frequent exceedances of fecal coliform and enterococci bacteria criteria. Microbial source testing (MST) indicates that the predominant source of bacteria is gulls. The majority of exceedances are at two beach sites downstream of a gull rookery, while a small number of exceedances occur near the gull rookery sites. Alaska Department of Environmental Conservation (DEC) regulation (18 AAC 70.010) and policy state that water quality standards in a waterbody may only be exceeded as a result of human actions, therefore DEC does not list a waterbody as impaired for natural conditions.

ACTION/PROPOSED ACTION/RECOMMENDED ACTION

DEC will maintain the Kenai River coastal beach waters in Category 3 (insufficient information) for the 2018 Integrated Report.

BACKGROUND

DEC completed a preliminary assessment for the north and south river beach waters based on data collected from 2013-2015. In 2015 the City of Kenai began raking these beaches each night to remove fish waste and discourage birds from spending time there. Additional monitoring completed in 2018 and 2019, and planned for 2020 will demonstrate the effects of beach raking and if bacteria exceedances continue to occur. Beach reports are available on the DEC BEACH Monitoring webpage (<https://dec.alaska.gov/water/water-quality/beach-program/>).

CONCLUSION

The 2018 data clearly demonstrate elevated levels of bacteria are present outside of the period when elevated local human populations are present (i.e., dipnet fishery between July 10 and July 31 annually). Human activities may still be contributing, it is unknown to what, if any, extent those activities elevate bacteria levels past natural conditions. Additional MST sampling occurred in 2019, results are under review.

NEXT STEPS

- DEC will continue to notify the public when bacteria levels exceed standards and issue advisories on precautions that should be taken.
- DEC plans to review more recent data from 2018-2019 sampling and complete a final listing determination for the 2020 Integrated Report.

ISSUE – DISSOLVED ZINC AND COPPER

Sampling in the Kenai River mainstem and several tributaries have indicated an increase in dissolved zinc and copper levels. Exceedances of water quality standards do not show a clear pattern and the source is unknown at this time.

ACTION/PROPOSED ACTION/RECOMMENDED ACTION

DEC will maintain the Kenai River mainstem in Category 3 (insufficient information) for the 2018 Integrated Report.

BACKGROUND

Water quality monitoring at several locations in the Kenai River watershed has shown potential increases in dissolved zinc and copper concentrations. A review of the literature indicates several possible non-point sources including galvanized metal, automobile tire wear, lawn and landscaping treatments, brake pad wear, motor oil and hydraulic fluids. Potential natural sources include forest fire runoff and natural mineral deposits. Water quality monitoring results for zinc and copper did not exhibit definitive patterns, more information is needed to determine if an impairment exists. Sampling is planned for 2020 in the mainstem and tributaries.

CONCLUSION

Data from 2000-2017 indicate increasing levels of zinc and copper in the watershed, but sources are unclear based on existing information. Additional data collection in the Kenai River mainstem and tributaries, and planned analysis will occur for a final listing determination.

NEXT STEPS

- Data collected in 2018 and 2019, and additional data collection planned for 2020 will be used to complete a final listing determination for the 2020 Integrated Report.
- Additional tributary sampling is planned in 2020 to better understand patterns and evaluate possible sources.

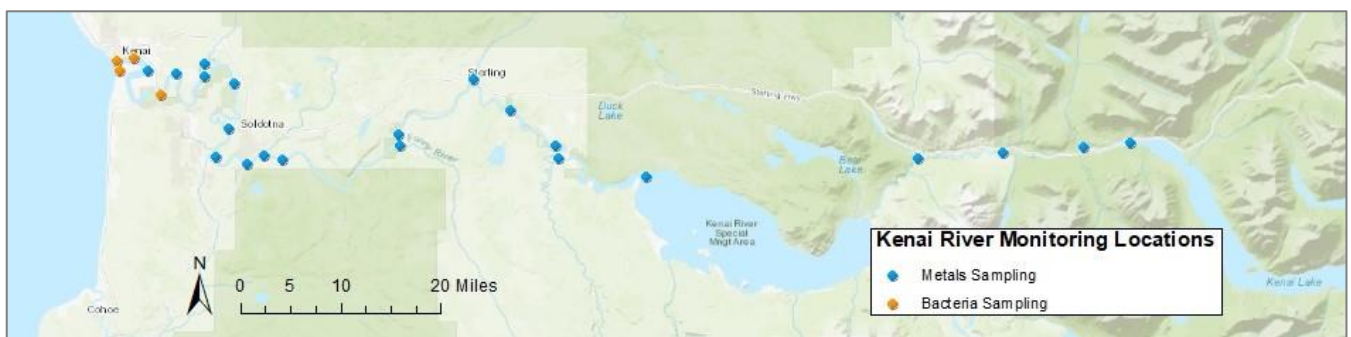


Figure 1. Kenai River bacteria sampling locations (orange) and metal sampling locations (blue).