Dry Weather Survey Summary 2021

Naval Base Kitsap (NBK) is required by its MS4 permit to conduct field assessments for illicit discharges, including visual inspection of outfalls during dry weather. NBK has maintained a robust dry weather survey program for many years to detect and investigate illicit discharges. During 2021, dry weather surveys were conducted for all areas of NBK listed in the MS4 permit, including comprehensive shoreline/boundary surveys for Jackson Park, Naval Hospital Bremerton, and substantial portions of Bangor and Keyport, which are described below. It is estimated that during the first year of the MS4 permit, NBK has met the requirement to complete field screening of 75% of all MS4 outfalls during the 5-year permit term. Surveys were conducted according to permit-prescribed procedures in *Illicit Connection and Illicit Discharge Field Screening and Source Tracking Guidance Manual*, Herrera Environmental Consultants, Inc, May 2013.

A comprehensive survey of the shoreline of Jackson Park and Naval Hospital Bremerton was accomplished. All water found flowing from the land to the Sound during this survey was characterized, whether it flowed from an identified MS4 outfall or otherwise, with the exception of water seeping out of the beach that could not feasibly be sampled and is expected to occur from groundwater and tidal outflow. Supporting the Sinclair and Dyes Inlets TMDL, a total of 11 fecal coliform samples/backup samples were taken from stormwater outfalls and other water flows. None of the fecal coliform sample results nor indicator measurements indicated illicit discharges were present. All flows were determined to be upstream natural creek flows, groundwater intrusion and/or tidal outflow.

At Keyport, a comprehensive shoreline survey of stormwater outfalls was conducted from the northern boundary around to the Radio Hill/lagoon area and also included areas in the middle and southern section of Keyport. A total of 13 fecal coliform samples/backup samples were collected, regardless whether the characterization suggested a likelihood of fecal coliform being present or not. This was done according to the MS4 permit requirement to focus on fecal coliform identification and elimination for drainage to Liberty Bay, as well as requirements from the Liberty Bay TMDL implementation plan. Only one of the sample fecal coliform results was high enough to warrant further investigation per the permit-prescribed guidance, but the 5 follow up fecal coliform sample results and indicator measurements were low enough to rule out an illicit discharge. This outfall will continue to be monitored for any changes in flow and water quality. None of the other fecal coliform sample results nor indicator measurements indicated illicit discharges were present.

At Bangor, a comprehensive survey of stormwater outfalls was conducted along the base boundary and shoreline clockwise from the veterinary clinic on Tautog Circle around to outfall #12 by the Explosives Handling Wharf. No dry weather flows to tributaries of Clear Creek were identified other than from outfall 01, which is already sampled quarterly for fecal coliform in compliance with the EPA MSGP permit sampling requirements for impaired waters. This supports the MS4 permit focus on fecal coliform identification and elimination for drainage to

tributaries of Clear Creek as well as the Sinclair and Dyes Inlets TMDL. Flows occurring along the West Boundary Road/shoreline toward Hood Canal were characterized and fecal coliform samples taken. A total of 20 fecal coliform samples/backup samples were taken. None of the fecal coliform results nor indicator measurements indicated that any illicit discharges were present.

At Camp Wesley Harris, a dry weather survey was conducted while taking samples supporting EAP research. No water was flowing at the time of the survey but there was standing water in the drainage ditch leading to the facility outfall. A fecal coliform sample was taken of the standing water at the facility stormwater outfall and the result was low enough to rule out any illicit discharges.

At Camp McKean the outfall in the northeast corner of the area was sampled for fecal coliform as part of the EAP research. The fecal coliform level was high enough to warrant further investigation. The source of flow at the outfall is from water flow out of forested areas on the north and south side of the west parking lot. This flow enters the piping on the west side of Kitsap Lake Road NW and then travels underground to the outfall with no other stormwater inputs. Supporting the Sinclair and Dyes Inlets TMDL and investigation of the fecal coliform level in the outfall, fecal coliform samples were taken at these two upstream flows as well as the outfall. Sample results indicate that the fecal coliform level in the upstream water flows are responsible for the fecal coliform level at the outfall. The only Camp McKean stormwater that enters the piping leading to the outfall is runoff from the west parking lot, which was dry at the time these samples were collected.