Fact Sheet

The U.S. Environmental Protection Agency (EPA) Proposes to Issue a National Pollutant Discharge Elimination System (NPDES) Permit for Municipal Stormwater Discharges to:

Naval Base Kitsap, Washington
WAS026646

Public Comment Start Date: September 30, 2019
Public Comment Expiration Date: November 14, 2019

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EPA Requests Public Comment on the Proposed Permit
The EPA proposes to issue an NPDES permit authorizing the discharge of stormwater from all municipal separate storm sewer system (MS4) outfalls owned or operated by Naval Base Kitsap. Permit requirements are based on Section 402(p) of the Clean Water Act, 33 U.S.C. § 1342(p), and EPA's Phase II regulations for MS4 discharges, published in the Federal Register on December 8, 1999, 64 Fed. Reg. 68722. *See also* 40 CFR Part 122.

The NPDES permit requires the implementation of a comprehensive municipal stormwater management program (SWMP) and outlines the management practices to be used by the Permittee to control pollutants in stormwater discharges. The permit establishes conditions, prohibitions, and management practices for discharges of stormwater from the MS4 owned or operated by Naval Base Kitsap. Assessment of water quality, through a selected combination of surface water, stormwater discharge, and biological sampling, is also included. Annual reporting is required to provide information on the status of SWMP implementation.

This Fact Sheet includes:
- information on public comment, public hearing and appeal procedures;
- a description of the Naval Base Kitsap MS4; and
- a description of requirements for the SWMP, a schedule of compliance, and other conditions.

State of Washington Certification
On April 25, 2019 the EPA requested that the Washington Department of Ecology (Ecology) certify the NPDES permit pursuant to Section 401 of the Clean Water Act, 33 U.S.C. § 1341.

Ecology requested public comment on the draft permits and on June 20, 2019, provided EPA a certification with conditions. The EPA is including those conditions in the draft permit.

Public Comment
Persons wanting to comment on, or request a Public Hearing for, the proposed permit may do so in writing no later than the public notice expiration date, November 14, 2019. A request for a public hearing must state the nature of the issues to be raised, as well as the requester's name, address and telephone number. All comments and requests for Public Hearing must be in writing and should be submitted to the EPA as described in the Public Comments Section of the attached Public Notice.

After the public comment period expires and all significant comments are considered, the EPA's regional Director of the Water Division will make a final decision regarding permit issuance. If no substantive comments requesting a change in the proposed permit are received, the tentative conditions in the proposed permit become final, and the permit will become effective upon issuance. If substantive comments are submitted, the EPA will prepare a response to comments, and, if necessary, will make changes to the proposed permit. The permit will become effective no earlier than 30 days after the issuance date, unless the permit is appealed to the Environmental Appeals Board within 30 days, pursuant to 40 CFR § 124.19.

Documents are Available for Review
The draft NPDES permit and related documents can be reviewed or obtained by visiting or contacting the EPA's Regional Office in Seattle between 8:30 a.m. and 4:00 p.m., Monday through Friday (see address above). The Draft Permit, Fact Sheet, and other information can also be found at https://www.epa.gov/npdes-permits/stormwater-discharges-municipal-sources-idaho-and-washington.

Disability Reasonable Accommodation Notice
If you need a reasonable accommodation for a disability, please contact a TDD operator at 1-800-833-6384. Please ask to be connected to Misha Vakoc at the above phone number.

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I. Introduction

Stormwater is the surface runoff that results from rain and snow melt. Urban development alters the land's natural hydrology, and human activity generates a host of pollutants that can accumulate on paved surfaces. Uncontrolled stormwater discharges from urban areas can negatively impact water quality.

The National Pollutant Discharge Elimination System (NPDES) stormwater regulations establish permit requirements for discharges from publicly owned ditches, pipes and other conveyances within urban areas.

The permit defines terms and conditions to authorize the discharge of municipal stormwater to waters of the United States from the municipal separate storm sewer system (MS4) owned or operated by Naval Base Kitsap. As used in this permit, Naval Base Kitsap refers to all facilities, operations and installations covered under this permit (*see* Part II), and the operational entities are referred to collectively as the "Permittee". When a provision is intended to apply to a particular operation or facility, that facility will be identified by name. The permit also conditionally authorizes the discharge of process waste water, regulated industrial stormwater, and regulated construction stormwater through the Naval Base Kitsap MS4, provided that such regulated discharges are authorized by the U.S. Environmental Protection Agency (EPA) pursuant to other appropriate (but separate) NPDES permit(s).

Naval Base Kitsap qualifies as a regulated MS4 because it is operated by the federal government [40 CFR § 122.32(a)] and is located in an Urbanized Area as determined in the Decennial Census by the Bureau of the Census [40 CFR § 122.32(a)(1)]. Military installations, like universities and state road systems, have been referred to as non-traditional MS4s because they are generally operated by a single entity without a complex government structure. The scope of legal authority differs in that ordinances and enforcement procedures generally can be preempted by policies, standards or contract language. As appropriate, the Draft Permit reflects this framework.

Regulated industrial stormwater discharges defined in 40 CFR § 122.26(b)(14) and which originate from Naval Base Kitsap operations within the permit area are currently authorized under the EPA's NPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP), Permit WAR05F000. In addition, regulated construction stormwater discharges within areas operated by Naval Base Kitsap are authorized, as necessary, under the EPA's NPDES General Permit for Stormwater from Large and Small Construction Activity (the Construction General Permit or CGP), Permit WAR10F000. These activities may discharge directly to waters of the United States, or through the MS4 to waters of the United States. These separate NPDES permits for the control of pollutants in industrial and construction stormwater discharges must be maintained by the Permittee.

This Fact Sheet describes the MS4s owned or operated by the Naval Base Kitsap and explains the rationale for the proposed NPDES permit conditions.

II. Applicant and Permit Area

Federal NPDES regulations require that, at a minimum, Naval Base Kitsap obtain permit coverage for its MS4 discharges which are located within an Urbanized Area as defined by the latest Decennial Census.

Naval Base Kitsap is located in Kitsap County within the Bremerton Urbanized Area defined by the Year 2010 Census[1]. The permit described in this document is proposed on a jurisdiction-wide basis to address discharges from the regulated small MS4 owned or operated by the United States Navy, Naval Base Kitsap, in the Census-defined Urbanized Area within Kitsap County in Washington State. Specifically, the Naval Base Kitsap Permit Area includes Jackson Park Housing Complex/Naval Hospital Bremerton (JPHC/NHB); Bangor; Keyport; Camp Wesley Harris; and Camp McKean.

As summarized in Appendix A of the Draft Permit, coverage is being granted to the five (5) distinct operational areas associated with Naval Base Kitsap, which are all under the same Command.

- The Jackson Park Housing Complex/Naval Hospital Bremerton covers 281 acres, includes 31 buildings and 270 structures. Stormwater is discharged to Ostrich Bay.
- Bangor covers 7200 acres of mostly forested area, and supports utilities, berthing, housing operations, messing, security and fire protection. Stormwater is discharged to the Hood Canal and Clear Creek.
- Keyport covers 358 acres, includes 40 structures and 114 buildings, mostly comprised of housing and administrative operations. Stormwater is discharged to Liberty Bay.
- Camp Wesley Harris covers 388 acres, includes 2 structures, and a shooting range that is used primarily for military exercises. Stormwater is discharged to Wildcat Creek.
- Camp McKean covers 21 acres, includes 10 structures and 2 buildings, and is a recreational camp. Stormwater is discharged to Kitsap Lake.

Naval Base Kitsap-Bremerton is not covered under this permit. Because of unique challenges at this location, the EPA and Naval Base Kitsap Command have agreed that a separate application for individual permit coverage should be submitted for this facility.

The Draft Permit imposes requirements for the management of discharges from the MS4 owned or operated by Naval Base Kitsap. (See Appendix A for maps of the Naval Base Kitsap installation areas).

III. Description of the MS4 and Discharge Locations

Overview of Discharges from JPHC/NHB to Ostrich Bay

Jackson Park Housing Complex/Naval Hospital Bremerton (JPHC/NHB) are contiguous to one another and are located along the west shoreline of Ostrich Bay (Figures 12 and 13). Jackson Park is mainly a residential area, comprised mostly of housing units and some supporting structures. The shoreline at JPHC/NHB has been extensively modified for residential and industrial purposes with a 1,400 feet concrete seawall and riprap throughout much of this portion of the Permit Area

Before JPHC/NHB were constructed in the 1970s and 1980s, the property was used as an ammunition depot where personnel made, cleaned, and destroyed military weapons, ammunition and maintenance equipment. Waste products from these operations have left behind contaminates on Navy owned

[1] Bremerton Urbanized Area Map, based on the Year 2010 U.S. Census.
https://www2.census.gov/geo/maps/dc10map/UAUC_RefMap/ua/ua09946_bremerton_wa/DC10UA09946.pdf

property. These areas have been addressed by the Navy's Installation Restoration Program[2] and continue to be monitored.

JPHC/NHB occupy 281 acres with a topography ranging from a relatively flat section along the shoreline of Ostrich Bay to approximately 180 feet above mean sea level at the western edge of the site. While most of the property has been converted from its original use to suburban style housing and a hospital, several of the original buildings remain including bunkers and concrete block buildings that are now used as a fire station, grounds maintenance, and storage. The housing area is leased to Hunt Companies, Inc., who is responsible for the maintenance and leasing of the housing area.

Surface water at JPHC/NHB is primarily runoff from precipitation and lawn watering. Water that does not infiltrate the ground enters the MS4 and discharges to Ostrich Bay through seven (7) outfalls. There are two perennial streams and three intermittent streams at this site. Two small streams on the south end flow into a narrow wetland, which drains to Ostrich Bay via culverts. The other streams flow into culverts that then drain to Ostrich Bay. None of the streams are fish-bearing because they either enter an underground storm sewer system prior to entering the outfalls and /or the culverts are not passable due to height (e.g. perched) or gradient.

Potential sources of pollutants for JPHC/NHB are: Petroleum, Oil and Lubricants (POLs), pet waste, fertilizers, pesticides, herbicides, and household waste. The entire area is approximately 281 acres: the Naval Hospital area consists of 51 acres and the housing area consists of 188 acres.

Overview of Discharges from Bangor to Clear Creek Watershed

The majority of the land at Bangor includes a 6,785-acre reserve with approximately 4,111 acres of evergreen forests and with some small meadows and a number of streams and lakes. The installation is divided into drainage basins. Four of these basins drain to Clear Creek and its unnamed tributary. The other basins drain to Hood Canal or infiltrate into the ground. See below for a discussion of discharges to Hood Canal.

Tributaries of Clear Creek drain approximately 750 acres of Bangor before exiting Navy property and entering Dyes Inlet at Silverdale. Trident Lakes were constructed as stormwater retention facilities to prevent large fluctuations in the volume and speed of stormwater entering the West Fork of Clear Creek. Trident Lakes serve as the headwaters of this stream. The Trident Lakes area is currently used as a recreational area having such amenities as picnic tables, restrooms, outdoor cooking facilities, and playground equipment. The lakes are stocked with catchable rainbow trout in order to allow for a put-and-take fishing opportunity. Other areas that drain to Clear Creek contain housing, offices, some industrial areas, and roads.

[2] The Navy completed a remedial action for Operable Unit 1 (OU1) in June 2002. The remedial action included construction of a shoreline protection system to prevent erosion and exposure of contaminated soil and landfill debris, the installation of a vegetative soil cover to prevent direct contact with contaminated soils on specific terrestrial portions of the remediation site, and the removal of creosote-treated piles in Ostrich Bay. Additionally, the Elwood Point Beach was extended through the excavation of historical fill and refilled with fish mix from 6.35 to 13.35 feet MLLW to enhance forage fish habitat.

Overview of Discharges from Naval Base Kitsap, Bangor to Hood Canal
Stormwater drainage facilities at Bangor include natural drainage conveyance systems (such as streams, creeks, and ditches), constructed drainage conveyance systems (such as swales, open channels, and culverts), and underground storm drain systems (including catch basin inlets, manholes, and outlets) that discharge to Hood Canal. Retention ponds and oil/water separators are also incorporated into the storm drain system.

Stormwater runoff from the eastern half of Bangor either infiltrates or flows eastward off the base toward Clear Creek. Flow off base is conveyed by either overland flow or within streams, creeks, and underground drainage system outfalls. Many of the surface water discharges are intercepted by retention ponds prior to discharge.

Stormwater runoff from the western portion of the base either infiltrates into the ground or flows westward into Hood Canal. Much of the surface water discharges are intercepted by retention ponds prior to discharge. Fifteen of the base's drainage basins drain to Hood Canal. Some outfalls are covered under the MSGP and require baseline monitoring. There is also an individual NPDES permit at the dry docks for non-contact cooling water discharge (#WA0025577).

Overview of Discharges from Keyport to Liberty Bay
Keyport is located on the eastern shore of the Kitsap Peninsula abutting Liberty Bay. The installation is approximately 15 miles due west of Seattle and 10 miles north of the city of Bremerton. The nearest communities to Naval Base Kitsap Keyport are Keyport, Silverdale, and Poulsbo. The installation shares a low-lying peninsula with the town of Keyport. Elevations range from less than 30 feet throughout the industrial area to a ridge of 150-160 feet in the southern area. Slopes are characteristically of low gradients, generally less than 5%, except for the higher ridge, which drops steeply to the lagoon and Liberty Bay.

The bay shorelines of Keyport are relatively stable and are protected by seawalls and riprap. The lagoon on the south side of the major developed area is a causeway-impounded body of shallow brackish water, held at a more or less constant level by a weir under the causeway bridge. The weir allows high tides to replenish the water level without a complete flushing of the brackish water normally impounded. Fresh water flows into the lagoon from a creek to the southwest, from watershed surface and subsurface flows, and storm sewer outlets.

The tide flats on the west side of the base have been partially filled, fenced, and generally heavily impacted by past use. The environmental value of the flats has been significantly diminished by these past actions. The marshy area on the western edge of the base, across from the tidal flats, is an identified wetland. It is fed by the drainage areas along State Route 303 and also lateral water percolation through the soil from surface runoff and tidal influx. Much of the original marsh was filled in the past.

Keyport storm drainage in the developed areas is collected by a gravity system that discharges at numerous locations into Liberty Bay and two lagoons which eventually discharge into Liberty Bay and Port Orchard Narrows. Stormwater runoff flows overland through streams and wetlands or within underground drainage systems that outfall to the shallow lagoon or the bay. There are two oil/water separators located at Keyport.

Several upland areas serve as sources for stormwater onto Navy property. The base lies at the bottom of a natural drainage basin for the Keyport area and receives run-on from the South, North, and West. Stormwater from agricultural areas, livestock areas, and residential areas flows onto Navy property. Also, up gradient from Keyport are several Kitsap County sewage lift stations that in the event of overflow could ultimately discharge onto Navy property. Keyport can be divided into seven distinct drainage areas that feed wetlands, salt marshes and tide flats, the shallow lagoon, and Liberty Bay.

Overview of Discharges from Camp Wesley Harris to Chico Creek Watershed
Camp Wesley Harris supports military training by providing a marksmanship and tactical training facility. This facility included rifle, pistol, and shotgun ranges. In 1998, two areas at Camp Wesley Harris were remediated to stabilize lead and other metals in the soil. Most buildings and facilities were demolished in 2005. Only five structures remain: a classroom with two restrooms, a pump house, a water reservoir, and an indoor range. The outdoor range, which comprises all of the installations east of Seabeck Hwy. NW, is no longer in use. The indoor range, located on the west side of Seabeck Highway NW, is used approximately once a month.

Camp Wesley Harris occupies approximately 388 acres and is located eight miles southwest of Naval Base Kitsap, Bangor, between Hood Canal and Dyes Inlet. The surrounding land is rural/residential.

Stormwater runoff from the outdoor range flows overland, generally to the central portion of the facility to a topographically lower area. A manmade drainage ditch was built to facilitate stormwater movement. There are a few wetland areas on Camp Wesley Harris capable of retaining stormwater runoff. Stormwater runoff from the indoor range area sheet flows off the site into Chico Creek and its tributaries. No stormwater sampling has been conducted at this installation.

Overview of Discharges from Camp McKean to Kitsap Lake
Camp McKean is a small recreational facility located along the shoreline of Kitsap Lake. The lake is approximately 238 acres with a 29-foot maximum depth and is part of the Chico Creek watershed. Kitsap Creek, an outlet of Kitsap Lake, feeds Chico Creek, which flows into Dyes Inlet at Chico Bay. An intermittent stream runs through the wooded southwestern portion of the installation.
The area is locked except when in use and consists of a playground, bathrooms, and a heavily wooded area on the opposite side of Kitsap Lake Drive. Pets are not allowed on the premises. Stormwater flow from the parking lot is directed into storm drains that flow to Kitsap Lake. The unnamed creek in the southwestern portion of the installation, a tributary to Kitsap Lake, does not receive stormwater runoff from the developed areas, with the exception of runoff from a gated trail and a railroad bed. Possible pollutants from this site are: POLs from vehicle parking, and trash. No stormwater sampling has taken place at this installation.

IV. Receiving Water Quality Standards

a. Designated Uses and Impairments

The MS4 discharges covered under this permit discharge to the following receiving waters:

U.S. Navy Property	City/County	Receiving Waters
Jackson Park Housing Complex/Naval Hospital Bremerton	Bremerton/Kitsap	Ostrich Bay
Bangor	Bangor/Kitsap	Hood Canal, Clear Creek
Keyport	Keyport/Kitsap	Liberty Bay
Camp Wesley	Bremerton/Kitsap	Wildcat Creek
Camp McKean	Bremerton/Kitsap	Kitsap Lake

States establish water quality standards for receiving waters within their jurisdictions. Water quality standards are composed of designated beneficial water uses to be achieved and protected, as well as water quality criteria necessary to protect designated uses. Under the provisions of 40 CFR § 131.10, the EPA requires states and eligible Indian Tribes to specify appropriate water uses to be achieved and protected.

Designated uses for the water bodies receiving Naval Base Kitsap MS4 discharges, as established in the State of Washington's Water Quality Standards (WQS), are summarized below:

Fresh Waters
Clear Creek and its tributaries are protected for: core summer salmonid habitat; primary contact recreation; water supply uses (domestic, industrial, agricultural and stock); and miscellaneous uses (wildlife habitat; harvesting; commerce/navigation, boating; and aesthetics.

Wildcat Creek is protected for core summer salmonid habitat; primary contact recreation; water supply uses (domestic, industrial, agricultural, stock); and miscellaneous uses (wildlife habitat, harvesting, commerce/navigation, boating and aesthetics).

Kitsap Lake is protected for core summer salmonid habitat; extraordinary primary contact recreation; water supply uses (domestic, industrial, agricultural, stock); and miscellaneous uses (wildlife habitat, harvesting, commerce/navigation, boating and aesthetics).

Marine Waters

	Aquatic Life Uses				Shellfish Harvest	Rec. Uses		Misc. Uses				
Use Designations for Marine Waters	Extraordinary	Excellent	Good	Fair		Primary Contact	Secondary Contact	Wildlife Habitat	Harvesting	Commerce/ Navigation	Boating	Aesthetics
Puget Sound, including Liberty Bay	X				X	X		X	X	X	X	X
Hood Canal	X				X	X		X	X	X	X	X

Ostrich Bay Watershed
The Dyes Inlet Watershed is located in Kitsap County, Washington. The boundaries of the watershed include the receiving waters of Dyes Inlets extending out from the inlet through Port Washington Narrows to Sinclair Inlet.

Ostrich Bay is a small embayment on the south end of Dyes Inlet. The bay is relatively shallow with an average water depth of 35 feet. Tidal current and winds are the main sources of water circulation in Dyes Inlet. Tidal current in Dyes Inlet is influenced primarily by flow out of Port Washington Narrows. The water exchange rate in Ostrich Bay is estimated to be an average of 20 to 50% per day, depending on tidal conditions, with an average residence time of 1 to 5 days. Approximately 17 small tributary streams drain into Dyes Inlet. The three largest streams are Chico Creek, Clear Creek, and Barker Creek.

The State of Washington has established designated uses for Dyes Inlet, including Ostrich Bay, as follows: excellent (aquatic life uses); primary contact (recreation); shellfish harvesting; and wildlife habitat, commerce and navigation, boating, and aesthetics (miscellaneous uses) (WAC 173-201A-612). While there is a Dyes Inlet fecal coliform TMDL, the adjacent waters of Ostrich Bay, where Naval Base Kitsap MS4 discharges to, are listed as Category 1 (meets tested standards for clean water) for bacteria.

Clear Creek Watershed

Clear Creek and its tributaries are located in the northern portion of the Dyes Inlet watershed. The main pollutant of concern in Clear Creek is fecal coliform. Stormwater from Naval Base Kitsap - Bangor drains to this creek through its tributaries.

The State of Washington has established designated uses for Clear Creek and its tributaries as follows: core spawning habitat (aquatic life uses); primary contact (recreation); domestic, industrial, agricultural, and stock water (water supply uses); and wildlife habitat, harvesting, commerce/navigation, boating, and aesthetics (miscellaneous uses) (WAC 173-201A-602). The Clear Creek tributary at the southeast corner of Naval Base Kitsap, Bangor is classified as Category 5 (Polluted waters that require a TMDL or other WQI project) by Washington Department of Ecology for fecal coliform and Category 2 for pH and dissolved oxygen. The waters of the portion of Clear Creek that drains into Dyes Inlet are classified as Category 5 for dissolved oxygen, 4A for fecal coliform (has a TMDL), and 1 for pH (Washington Department of Ecology, 2012).

A TMDL has been established for the Sinclair/Dyes watershed[3]. Naval Base Kitsap – Bangor has been assigned a wasteload allocation (WLA) of a 95% reduction in the discharge of fecal coliform at the head of Dyes Inlet below Clear Creek. The WLA is equivalent to the percent reduction for either the geometric mean or the 90th percentile, whichever is greater. The TMDL reasonable assurance analysis expresses the expectation that the refinement and implementation of stormwater pollution prevention plans (SWPPPs) for industrial stormwater will achieve these reductions. The EPA has ensured that the Draft Permit conditions are consistent with the assumptions in the TMDL by including provisions that require Naval Base Kitsap – Bangor to implement public education and outreach activities to increase awareness of bacterial pollution and promote proper pet waste management (Part 2.1.3); focus the identification detection and elimination program on fecal coliform identification and elimination (Part 2.3.3); and install and maintain animal waste collection and/or education stations in Permittee owned and operated areas reasonably expected to have substantial domestic animal use (Part 2.5.7).

Outfalls at drainage basins 1 and 20 are tested annually for fecal coliform under the installation's MSGP, and in accordance with the TMDL. Outfalls at drainage basins 2 and 18 are not included on the industrial permit and do not have any current fecal coliform testing data.

[3] Washington Department of Ecology, *Sinclair and Dyes Inlets Fecal Coliform Bacteria Total Maximum Daily Load*, 2012. Publication No. 11-10-051. https://test-fortress.wa.gov/ecy/publications/documents/1110051.pdf

Hood Canal Watershed

Part of the Hood Canal Watershed is located in Kitsap County Washington. The canal also takes water runoff from Clallam, Jefferson, and Mason Counties. For Kitsap County, the boundaries of the watershed run the western length of the peninsula.

Hood Canal is a long, deep fjord-like waterbody in Puget Sound with relatively low human development in the surrounding watershed. The tidal exchange between Hood Canal and Admiralty Inlet is small relative to the overall depth and volume of the canal, and a sill at the north end of Hood Canal restricts circulation. Because of these characteristics, low dissolved oxygen (hypoxia) is a natural condition in the deep waters of Hood Canal.

Naval Base Kitsap Bangor is located in northern Hood Canal. The State of Washington has established designated uses for Hood Canal as follows: extraordinary (aquatic life uses); primary contact (recreation); shellfish harvesting; and wildlife habitat, commerce/navigation, boating, and aesthetics (miscellaneous uses) (WAC 173-201A-612). The current 303(d) list includes two grid segments along the Bangor Waterfront impaired by low DO levels. One is adjacent to Marginal Wharf and Delta Pier; the other is to the south of Service Pier (Washington Department of Ecology, 2012). Waters of Hood Canal immediately south of the proposed project sites and approximately 0.5 mi north of the base boundary are on the current 303(d) list for low DO. No total maximum daily load (TMDL) has been developed by Ecology for this area. Areas of Hood Canal near the base have also been listed as Category 2, waters of concern, for isolated exceedances of bacteria (fecal coliform) and pH.

The Navy has sampled the waters off Naval Base Kitsap - Bangor numerous times for water quality parameters (temperature, salinity, DO, and turbidity). This sampling has shown that these waters are consistently within the Washington State standards for extraordinary water quality for each of these parameters. An exception to these findings was temperature, which typically met extraordinary water quality levels in the winter months and excellent water quality standards in the summer months. Waters south of EHW-1 and further offshore showed similar results with the exception of DO, which typically ranged from excellent to extraordinary.

Liberty Bay Watershed

Liberty Bay is a branch of the Puget Sound. The mouth of Liberty Bay is located off Port Orchard Bay, which flows through the narrow Agate Passage to the north and Port Orchard Narrows to the south. Liberty Bay and waters adjacent to Keyport are relatively shallow with water depths no greater than 100 feet. Depths increase from the northwest to south/southeast and are greatest in the southern portion of the Port Orchard Narrows. Keyport contains approximately 5,000 feet of shoreline, the majority of which is riprap or bulkhead. Port Orchard Narrows is relatively calm due to its protected location.

Liberty Bay exceeds the state fecal coliform standard. Pollutants in the sediment have also been assessed and included in the impaired waterways parameter list.

The State of Washington has established designated uses for Liberty Bay as follows: extraordinary (aquatic life uses); primary contact (recreation); shellfish harvesting; and wildlife habitat, commerce and navigation, boating, and aesthetics (miscellaneous uses) (WAC 173-201A-612). The waters of Liberty Bay and east of the installation are classified as Category 2 (Waters of Concern) by Ecology for temperature

(Washington Department of Ecology, 2012). The waters in Liberty Bay west of the pier are classified as Category 5 (Polluted Waters) for fecal coliform and Category 2 for DO and temperature.

A fecal coliform TMDL has been established for Liberty Bay and its tributaries, including Brownsville Creek which runs through Keyport.[4] Keyport has been assigned the following WLAs:

Water Body and Site Location	Dry Season WLA	
	% Reduction	billion FC cfu/100 mL
Small stream at Brownsville Hwy	96	0.01
Keyport Creek	87	0.1

The TMDL reasonable assurance analysis expresses the expectation that MS4 public education programs that raise public awareness of water quality and best management practices (BMPs) should help achieve these reductions. The EPA has ensured that the Draft Permit conditions are consistent with the assumptions in the TMDL by including provisions that require Keyport to conduct stormwater discharge monitoring to characterize the quality of MS4 discharges from Drainage Basins 2 and 3 into Puget Sound (Part 3.2.2); implement public education and outreach activities to increase awareness of bacterial pollution and promote proper pet waste management (Part 2.1.3); focus the identification detection and elimination program on fecal coliform identification and elimination (Part 2.3.3); install and maintain animal waste collection and/or education stations in Permittee owned and operated areas reasonably expected to have substantial domestic animal use (Part 2.5.7); and develop and implement an Infrastructure Investment Plan that will focus on implementing BMPs to address specific sources of pollution to Liberty Bay (Part 2.4.4).

Wildcat Creek
Wildcat Creek is located in Kitsap County and is a tributary of Chico Creek. The creek receives possible discharge from Camp Wesley Harris via intermittent streams.

Kitsap Lake
Kitsap Lake is located in Kitsap County, west of Dyes Inlet and three miles from the city of Bremerton. Kitsap Lake is a recreational lake and is stocked with rainbow trout for year-round sport fishing. The waters of Kitsap Lake are classified as Category 5 for both phosphorous and bacteria (Waters of Concern) by Washington Department of Ecology (2012). The surrounding area is residential. There is recreational motor boat use on Kitsap Lake.

b. Antidegradation

The EPA is required under Section 301(b)(1)(C) of the CWA, 33 U.S.C. § 1311(b)(1)(C), and implementing regulations (40 CFR §§ 122.4(d) and 122.44(d)) to establish conditions in NPDES permits that ensure compliance with State water quality standards, including antidegradation requirements. The State of Washington has established antidegradation rules (WAC 173-201A-300).[5]

[4] Washington Department of Ecology, *Liberty Bay Watershed Fecal Coliform Bacteria Total Maximum Daily Load*, 2013. Publication No. 13-10-014. https://fortress.wa.gov/ecy/publications/documents/1310014.pdf

[5] See antidegradation statement in the Administrative Record for this draft permit.

V. Basis for Permit Conditions

a. Federal Requirements

Clean Water Act

Permit conditions are based on Section 402(p)(3)(B) of the CWA, 33 U.S.C. § 1342(p)(3)(B), which requires any NPDES permit for MS4 discharges to: 1) effectively prohibit non-precipitation related flows from entering the MS4, and 2) require controls necessary to reduce pollutants in municipal stormwater discharges to the MEP, including management practices, control techniques, and system design and engineering methods, and/or other such provisions determined to be appropriate by the NPDES permitting authority. Appendix A of this Fact Sheet discusses the regulatory background, and associated definitions of relevant terms, for the NPDES municipal stormwater permit program.

NPDES permits for regulated small MS4s contain conditions that require the operator to develop, implement, and enforce a stormwater management program (SWMP) designed to reduce the discharge of pollutants from the MS4 to the MEP, to protect water quality, and to satisfy the appropriate water quality requirements under the CWA [40 CFR §122.32(a)]. The SWMP must address six minimum control measures set forth in the federal regulations and discussed in detail below [40 CFR § 122.34(b)]. In addition, the permit must include more stringent terms and conditions based on an approved total maximum daily load (TMDL) or equivalent analysis, or where needed to protect water quality [40 CFR §122.44(d)(1)(vii)(B) and 40 CFR §122.34(c)(1)].

Endangered Species Act

Per Section 7 of the Endangered Species Act of 1973, as amended (16 U.S.S. 1531-1544), the EPA is required to consult with the Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) (collectively referred to as the Services) to ensure that issuance of the NPDES permit supports the goal of protection and recovery of threatened and endangered species and habitats. The EPA is required to consult with the Services on ways in which the permit action may support this objective.

As of the date of public notice of this draft permit, the EPA and the Services have not concluded consultation. However, initial conversations have occurred, and the Services have provided comments on the draft permit[6]. The comment letter specifies pollutants of concern (POCs) and recommends targeted pollution abatement of these POCs. Of particular concern to the Services is the Southern Resident Killer Whale (*Orcinus orca*), which is in precipitous decline because these POCs affect them directly and because they affect their primary food sources, salmonids, many of which are also threatened or endangered. The EPA is proposing provisions specifically to reduce these POCs in MS4 discharges. The EPA is also proposing optional provisions specifically targeted to the Southern Resident Killer Whale since this species is a priority for the Services. The EPA is proposing the following provisions in the draft permit:

- Part 2.1.2 outlines a Southern Resident Killer Whale Stormwater Outreach and Education program. The program would be developed for a target audience of all MS4s in the region and others who influence stormwater discharges to the Puget Sound Watershed. The program would be designed to: 1) raise awareness of the threats, 2) identify known and likely sources and causes, and 3) identify and facilitate robust and implementable solutions.

[6] Draft letter for discussion purposes from the National Marine Fisheries Service and the U.S. Fish and Wildlife Service, dated October 30, 2018, is included in the administrative record for the draft permit.

- Part 2.2.4 outlines options for volunteer opportunities under the public involvement requirements of the draft permit. Suggestions for opportunities that address endangered species are included in this list of suggestions.
- Part 2.4.4 includes a list (Table 2.4.4 in the draft permit) of POCs identified by the Services in the October 2018 draft letter as notable threats to specific endangered species in the Action Area for this permit. The EPA has taken the Services' list of classes of POCs, and specified particular POCs in Table 2.4.4 (e.g., chrysene, phenanthrene, benzo-(g,h,i)perylene, etc. instead of the more general term: polyaromatic hydrocarbons). The requirement in Part 2.4.4 was originally included to be consistent with Ecology's framework for addressing impaired waters. However, the EPA is also proposing that stormwater infrastructure approaches be used to reduce POCs that threaten endangered species. The provision requires the development and implementation of: 1) Early Action Projects (EAPs) that can be implemented during this permit term and 2) a longer-term stormwater infrastructure implementation plan (SIIP) for Naval Base Kitsap that addresses POCs including those identified by Washington Department of Ecology (i.e., impaired waters, TMDL wasteload allocations) and those identified by the Services as threats to endangered species. The list of POCs provided by the Services is extensive. Therefore, the EPA is proposing that the Permittee may develop it's SIIPs for POCs confirmed in MS4 discharges by monitoring, suspected based on known activities and land uses, or a combination of both approaches.
- Part 3.3.5 proposes monitoring requirements for POCs. As noted above, the list of POCs in Table 2.4.4 is extensive, and it is likely that not all pollutants will be present in all MS4 discharges. Therefore, the EPA is not proposing that long-term monitoring plans include all of these POCs. However, the EPA does recommend that initial screenings for most of these POCs be conducted in a "rule-out" effort; many of these POCs may then be legitimately dropped from inclusion in ongoing monitoring.

The EPA also solicits comments on other ways in which the POCs in Table 2.4.4 may be effectively targeted for reduction in MS4 discharges.

Essential Fish Habitat

Essential fish habitat (EFH) is the waters and substrate (sediments, etc.) necessary for fish to spawn, breed, feed, or grow to maturity. The Magnuson-Stevens Fishery Conservation and Management Act (January 21, 1999) requires EPA to consult with the NOAA-Fisheries when a proposed action has the potential to adversely affect (reduce quality and/or quantity of) EFH. The EPA is currently evaluating the impacts of the EPA's issuance of this permit and will complete EFH consultation if necessary, in the near future.

National Historic Preservation Act

With regard to the National Historic Preservation Act, if the Permittee engages in any activity which meets all of the following criteria, the Permittee must consult with and obtain approval from the State Historic Preservation Office prior to initiating the activity:

1) the Permittee is conducting the activity in order to facilitate compliance with this permit;
2) the activity includes excavation and/or construction; and
3) the activity disturbs previously undisturbed land.

Some examples of activities subject to this permit condition and the above criteria include but are not limited to: retention/detention basin construction; storm drain line construction; infiltration basin construction; dredging; and stabilization projects (*e.g.*, retaining walls, gabions). The requirement to submit information on plans for future earth disturbing is not intended for activities such as maintenance and private development construction projects. The EPA contends that the reduction of pollutants in runoff from the MS4 will not result in the disturbance of any site listed or eligible for listing in the National Historic Register. Therefore, the EPA concludes that the actions associated with this permit are in compliance with the terms and conditions of the National Historic Preservation Act.

b. State of Washington Requirements.

The State of Washington's Water Pollution Control Act is defined in Chapter 90.48 of the Revised Code of Washington (RCW). RCW 90.48.010 establishes that:

> "…the public policy of the state of Washington (is) to maintain the highest possible standards to insure the purity of all waters of the state consistent with public health and public enjoyment thereof, the propagation and protection of wild life, birds, game, fish and other aquatic life, and the industrial development of the state, and to that end require the use of all known available and reasonable methods by industries and others to prevent and control the pollution of the waters of the state of Washington."

Applicable water quality-based, technology-based, and toxic or pretreatment effluent limitations are provided under 33.U.S.C. §1311, 1312, 1313, 1316 and 1317 (FWPCA § 301, 302, 303, 306 and 307). Washington's Water Quality Standards (WQS) are established in the Washington Administrative Code (WAC) as follows: surface water quality standards (Chapter 173-201A WAC), groundwater standards (Chapter 173-200 WAC), sediment quality standards (Chapter 173-204 WAC) and are authorized by 33.U.S.C. §1311 and by chapter 90.48 RCW. All known, available and reasonable methods to prevent and control pollution of state waters are authorized by RCW 90.48.010 and 90.54.020(3)(b). Prohibition on discharges that cause of tend to cause pollution of waters of the state of Washington are authorized by RCW 90.48.080. The EPA has currently proposed revisions to the regulations implementing FWPCA § 401 which may, depending on the content of the finalized rule, have an effect on the types of conditions that can be imposed by states. EPA's inclusion of state certification conditions in this permit should not be taken as a contradiction to EPA's FWPCA § 401 rule proposal.

c. Other Considerations

The EPA considered the Navy's Low Impact Development policy, as described in *Unified Facilities Criteria (UFC) Low Impact Development* (Unified Facilities Criteria).[7] The EPA finds some of these criteria to be

[7] U.S. Army Corps of Engineers, Naval Facilities Engineering Command, Air Force Civil Engineer Support Agency, 2015, amended 2016, *Unified Facilities Criteria, Low Impact Development*.
https://www.wbdg.org/FFC/DOD/UFC/ufc_3_210_10_2015_c1.pdf
Excerpted: The Unified Facilities Criteria (UFC) system is prescribed by MIL-STD 3007 and provides planning, design, construction, sustainment, restoration, and modernization criteria, and applies to the Military Departments, the Defense Agencies, and the DoD Field Activities. UFC will be used for all DoD projects and work for other customers where appropriate. UFC are living documents and will be periodically reviewed, updated, and

conceptually consistent with the State of Washington requirements, though not always technically consistent. Rather than undertake a resource intensive evaluation of the Unified Facilities Criteria for each design approach and management practice, many of which may not be applicable at Naval Base Kitsap, the EPA has included a provision in the Draft Permit (Part 1.5, *Equivalent Documents, Plans or Programs*) that will allow the Permittee to propose specific control measures to the EPA that it considers functionally equivalent.

In addition, the EPA considered the following:

- MS4 permit application materials submitted by Naval Base Kitsap, as well as information exchanged in the numerous discussions held with Naval Base Kitsap and other Naval installations;
- Puget Sound Partnership's Action Agenda and Ecosystem Recovery Targets[8];
- Other MS4 permits, including Joint Base Lewis-McChord (WAS026638)[9].

VI. Explanation of Permit Conditions

a. Discharges Authorized under this Permit

The permit authorizes all existing discharges to both waters of the U.S. and ground waters of the State from the MS4 owned or operated by Naval Base Kitsap. The EPA has included the requirement concerning discharges to ground waters of the State pursuant to conditions of Ecology's CWA Section 401 certification.[10]

In Part I.3, the Draft Permit limits the authorization to discharge from the MS4 in the following manner:

- Compliance with all terms and conditions of the Draft Permit satisfy the presumption that discharges are not causing or contributing to an exceedance above the State of Washington's water quality standards, including, but not limited to, those standards contained in Chapters 173-201A (surface water quality) 173-204 (sediment management) and 173-200 (groundwater)

made available to users as part of the Services' responsibility for providing technical criteria for military construction.

[8] Action Agenda for Puget Sound, see especially Chapter 3, *Stormwater Strategic Initiative*, http://www.psp.wa.gov/action_agenda_center.php

[9] U.S. EPA, *Joint Base Lewis-McChord MS4 Permit*, 2013. *See* Part II.D, *Required Response to Violations of Water Quality Standards*. https://yosemite.epa.gov/oa/eab_web_docket.nsf/Attachments%20By%20ParentFilingId/002B82A5F1FFB76585257C1A005FFB8A/$FILE/JBLM%20MS4%20NPDES%20Permit%20(Attachment%20A).pdf

[10] Condition of the June 20, 2019 Washington Department of Ecology Water Quality 401 Certification, Page 2, Part B.2

of the Washington Administrative Code (WAC).[11] The required response to such discharges is defined in Part 4 (*Required Response to Violations of Water Quality Standards*).

- Snow disposal directly into waters of the United States, or directly to the MS4, is prohibited. Melt water from snow management activities are allowed, provided that appropriate BMPs are used.
- Discharges of stormwater associated with industrial activity, including construction activity, are only authorized when covered under the appropriate general permits, or other permit as appropriate.
- Certain types of runoff that are unrelated to precipitation events (referred to as "non-stormwater") and which are listed in the permit consistent with 40 CFR § 122.34(b)(3)(iii), may also be discharged through/from the MS4, provided these discharges are not considered to be sources of pollution to the waters of the United States and meet certain permit conditions.

b. Permittee Responsibilities

40 CFR § 122.41 requires the Permittee to comply with all terms and conditions of a NPDES permit.

The Permittee must implement a comprehensive SWMP to reduce pollutants from discharging through the MS4. The Permittee must describe its SWMP program components in a written SWMP document (*see* Draft Permit Part 1.4.3). The Permittee must develop and implement a comprehensive and multifaceted SWMP (*see* Draft Permit Part 2). The Permittee must undertake monitoring and assessment, track progress and maintain records to report on SWMP implementation progress (*see* Draft Permit Part 3). The Permittee must also respond appropriately to discovered violations of water quality standards (*see* Draft Permit Part 4).

The SWMP document required in Draft Permit Part 1.4.3 comprises those references and activities that uniquely define the Permittee's SWMP and is in essence a "looking forward" document that substantiates how the Permittee reduces pollutants in stormwater discharges. The SWMP document must be updated annually as new program components are implemented or added. The updated SWMP document must be submitted with the required Annual Report. In contrast to the SWMP, the Annual Report summarizes activities conducted by the Permittee during the previous reporting period and provides an overall assessment of the Permittee's compliance with the permit.

Pursuant to 40 CFR § 122.35(a), Draft Permit Part 1.4.1 (*Shared Implementation with Outside Entities*) allows the Permittee to share or delegate the responsibility of implementing some or all of a required minimum control measure to another entity if: 1) the other entity in fact implements the control measure; 2) the particular control measure is at least as stringent as the corresponding permit requirement; and 3) the other entity agrees to implement the control measure on the Permittee's behalf. The Permittee must enter into binding agreements with such outside parties in order to minimize any uncertainty about compliance with the permit. The Permittee remains responsible for compliance with the permit obligations in the event the other entity fails to implement the control measure (or any component thereof).

[11] Condition of the June 20, 2019 Washington Department of Ecology Water Quality 401 Certification, Page 2, Water Quality Certification Conditions, Paragraph 2 and Part B.1

As an example, certain organizations and agencies are considered tenants on Naval Base Kitsap property; in some situations, these tenants operate the MS4 serving those respective facilities. The Permittee may choose to include any required stormwater program element(s) in written agreements which must be accomplished on the Permittee's behalf by the tenant. This arrangement should be an enforceable requirement of the applicable real property agreement or lease. Such arrangements, as well as any work accomplished on the Permittee's behalf, must be summarized and reported to the EPA through the Annual Reports and/or the SWMP document.

If the Permittee delegates responsibility for implementing a minimum control measure or program element to a tenant through a written agreement, and the tenant fails to implement the activity, the Permittee remains responsible for compliance with the permit requirement.

The EPA has outlined a procedure through which the Permittee's programs and/or documents can be determined equivalent to requirements in the Draft Permit (*see* Part 1.5 of the Draft Permit, *Equivalent Documents, Plans or Programs*) by submitting them to the EPA for review and consideration no later than six months after the effective date of the permit. In the event that the EPA determines other documents or programs are equivalent to required SWMP element(s), the Permittee remains responsible for including the specific document or program by reference within the written SWMP document, and for ensuring that the EPA has ready access to current copy or representation of the equivalent document/program. Consistent with the Washington State Department of Ecology 401 certification of the draft permit, the EPA shall confer with Ecology during the review.[12] If the equivalent document, plan or program constitutes a major change to the permit, the EPA will undertake a permit modification.

The Permittee must also maintain adequate legal authority to implement the requirements of the Draft Permit (*see* Part 1.4.2 of the Draft Permit, *Maintain Adequate Legal Authority*). The SWMP document must summarize the regulations, codes and policies that satisfy this requirement.

The Permittee must maintain and updated SWMP document and make it available to the public on its website (Part 1.4.3). The Permittee must maintain robust methods to compile and maintain information on SWMP activities and permit compliance (Part 1.4.4). The Permittee must maintain adequate resources to fully implement the SWMP and the provisions of the Draft Permit (Part 1.4.5).

c. Summary of Stormwater Management Program Control Measures

Part 2 of the Draft Permit describes the requirements of 40 CFR § 122.34(b) to implement six minimum control measures:

- Public Education and Outreach on Stormwater Impacts;
- Public Involvement and Participation;
- Illicit Discharge Detection and Elimination;
- Construction Site Stormwater Runoff Control;
- Post Construction Stormwater Management in New Development and Redevelopment; and
- Pollution Prevention/Good Housekeeping for Municipal Operations.

[12] Condition of the June 20, 2019 Washington Department of Ecology Water Quality 401 Certification, Page 3, Part B.5.a

In Part 2 of the Draft Permit, the EPA has defined SWMP minimum control measures for Naval Base Kitsap that are consistent with the federal NPDES regulations as well as with practices established by Ecology to comply with water quality requirements. For ease of implementation the EPA has combined minimum measures four and five, as described later.

Education and Outreach on Stormwater Impacts [40 CFR §122.34(b)(1)]

Part 2.1 of the Draft Permit describes a public education and outreach program to: 1) reduce or eliminate behaviors and practices that cause or contribute to stormwater pollution; and 2) encourage the public to participate in stewardship activities.

Education leads to greater compliance with the MS4 program, as the public becomes aware of personal responsibilities and individual actions that can protect or improve water quality in their area**.** For a federal military facility, the EPA has determined that the community or "public" includes the tenants, staff, and contractors within the fence line of the facility. As such, target audiences for these activities include: project managers, contractors, tenants, residents, and environmental staff.

The General Stormwater Outreach and Education program (Part 2.1.1) requires the permittee to:

- Publicize means for reporting spills and other illicit discharges (Part 2.1.1.1 of the Draft Permit) [40 CFR §122.34(b)(3)(iii)];
- Inform target audiences of the environmental impacts of illegal discharge and improper disposal of waste, consistent with the requirements of Part 2.3 of the Draft Permit (Part 2.1.1.2 of the Draft Permit) [40 CFR §122.34(b)(3)(i)(D)].

In addition, the Permittee must select from the following topics to develop an outreach and education program that specifically targets Naval Base Kitsap operations and water quality priorities (Part 2.1.1.3 of the Draft Permit):

- Proper use, storage and disposal or household hazardous waste;
- Proper recycling;
- Appropriate stormwater management practices for commercial food service, and automotive activities, including carpet cleaners, home-based or mobile businesses;
- Appropriate yard care techniques for protecting water quality, including proper timing and use of fertilizers;
- Proper pet waste management;
- Appropriate spill prevention practices;
- Proper management of street, parking lot, sidewalk and building wash water; and
- Proper dust control methods.

In addition, the permit includes a Southern Resident Killer Whale Stormwater Outreach and Education component (Part 2.1.2) that requires the Permittee to focus stormwater outreach and education efforts specifically on stormwater threats to Southern Resident Killer Whales. The program would be developed for a target audience of all MS4s in the region and others who influence stormwater discharges to the Puget Sound Watershed. The program would be designed to: 1) raise awareness of the threats, 2)

identify known and likely sources and causes, and 3) identify and facilitate robust and implementable solutions.

Part 2.1.3, *Additional Public Education and Outreach for Naval Base Kitsap-Keyport and Naval Base Kitsap-Bangor* supplements the activities in Part 2.1*, Education and Outreach on Stormwater Impacts*, of the Draft Permit. Consistent with 40 CFR §122.34(c)(1) MS4 permits may contain more stringent terms and conditions to supplement the core requirements of an NPDES permit where such measures are determined to be necessary to protect water quality. Because waters to which Naval Base Kitsap – Keyport and Naval Base Kitsap - Bangor operations discharge are impaired for fecal pathogens, the Permittee shall supplement the outreach and education activities, such as pet waste management, with efforts to specifically target sources of *E. coli*. [40 CFR §122.34(b)(1)]

The Permittee must assess the effectiveness of outreach and education efforts by selecting and documenting metrics that will measure the understanding and adoption of the targeted behaviors (Part 2.1.4). At a minimum this must be done for at least one audience in at least one of the chosen targets. The resulting measurements must then be used to inform future outreach and education efforts for the remainder of the permit term. The Permittee has the option of undertaking one or more of these efforts in conjunction with other entities.

The Permittee must also summarize outreach and education activities, including the assessment(s) in each Annual Report (Part 2.1.5).

Public Involvement/Participation [40 CFR §122.34(b)(2)]

Part 2.2 of the Draft Permit describes a program by which the Permittee will focus on internal, i.e., installation-wide, organizational coordination to ensure all necessary cooperation and optimize resources to achieve SWMP objectives. Minimally, the Permittee must also engage with the broader community in the Region by following reasonable public notice practices and ensuring that the general public has access to the Permittee's SWMP document(s). There are four elements:

- Compliance with all applicable federal public notice requirements when conducting activities associated with this permit [40 CFR §122.34(b)(2)(i)];
- At least once annually conduct one or more regional meetings to coordinate among appropriate staff and management within installations/organizations to ensure effective implementation of the SWMP control measures required by the Draft Permit;
- Maintain an updated SWMP document available to the public on the Permittee's website; and
- At least twice during the permit term, sponsor one or more volunteer activity designed to actively engage residents and employees at the installation. These activities should complement the stormwater outreach and education activities selected by the Permittee pursuant to Part 2.1 of the Draft Permit.

The Permittee must summarize public involvement and participation activities in each Annual Report.

Illicit Discharge Detection and Elimination [40 CFR §122.34(b)(3)]

Part 2.3 of the Draft Permit describes a set of requirements to identify and eliminate illicit discharges. An illicit discharge is any discharge to a MS4 that is not composed entirely of stormwater. Exceptions to this

definition include the authorized non-stormwater discharges identified in Part 1.3.4.5 of the Draft Permit, and discharges already authorized by another NPDES permit.

Illicit discharges can enter a MS4 through either direct connections (*e.g*., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (*e.g.,* infiltration into the MS4 from cracked sanitary systems, spills collected by drain inlets, or paint or used oil dumped directly into a drain). Pollutant levels from illicit discharges can significantly degrade receiving water quality and threaten aquatic, wildlife, and human health. 40 CFR § 122.34(b)(3) contains four required components to the Illicit Discharge Detection and Elimination (IDDE) control measure. The MS4 operator must:

- Develop a map of the MS4 showing the location of all outfalls and names of the receiving waters;
- Effectively prohibit discharges of non-stormwater to the MS4 through the use of an ordinance or other regulatory mechanism and provide enforcement procedures and actions. The EPA recognizes that some MS4 operators -such as federal entities- may not have the legal authority to enact an ordinance; in such case, the operator may evaluate and use any policies, standard operating procedures, or other means in developing an adequate regulatory mechanism. The EPA uses the term ordinance in the permit to refer to such a regulatory mechanism;
- Develop and implement a program to detect and address non- stormwater discharges, including procedures to identify the problem areas in the community, determine sources of the problem(s), remove the source if one is identified, and document the actions taken; and
- Inform public employees, businesses, and the general public of the hazards associated with illegal discharges and improper disposal of waste.

Part 2.3.1 of the Draft Permit requires the Permittee to update and maintain maps of the MS4 no later than 180 days prior to the expiration date of the permit. The permit includes a list of features and assets that must be included in these maps.

Part 2.3.2 of the Draft Permit requires the Permittee to effectively prohibit all illicit discharges into the MS4 per the legal authorities of the Permittee. As necessary, relevant policies to comply with this requirement must be in place no later than two years from the effective date of the Final Permit. Part 2.3.2.2 (*Conditionally Allowable Discharges*) specifies a small subset of discharges that may be discharged only if specific treatment, assessment or public awareness requirements are implemented.

These policies must include all necessary activities to correct and/or eliminate any identified illicit discharge. The Draft Permit describes certain types of discharges that may be conditionally allowable, such as discharges from flushing potable water lines and runoff from lawn irrigation.

Part 2.3.3, *Targeted Source Identification & Elimination for Naval Base Kitsap-Keyport and Naval Base Kitsap-Bangor*, supplements the requirements of Part 2.3, *Illicit Discharge Detection and Elimination*, of the Draft Permit. Consistent with 40 CFR §122.34(c)(1) MS4 permits may contain more stringent terms and conditions to supplement the core requirements of an NPDES permit where such measures are determined to be necessary to protect water quality. Because of fecal coliform impairments in Liberty Bay and Clear Creek, source identification and elimination efforts must be a high priority for MS4 discharges to these watersheds, in particular at Naval Base Kitsap-Keyport and Naval Base Kitsap-Bangor. [40 CFR §122.34(b)(3)]

Part 2.3.4 of the Draft Permit outlines the necessary elements and schedules for an IDDE program, including minimum procedures for field assessments during dry weather, procedures for characterizing the nature of discharges and their impacts, procedures for identifying sources of discharges, and procedures for eliminating discharges. The permit provides two manuals from which the Permittee may adopt screening practices: *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*[13] and *Illicit Connection and Illicit Discharge Field Screening and Source Tracking Guidance Manual*[14]. As a condition of Ecology's 401 certification, Part 2.3.4.5.1 requires the permittee to notify downstream permittees if a spill or other non-stormwater discharge may reach their MS4.[15]

Part 2.3.5 of the Draft Permit requires that staff responsible for implementing the IDDE program have proper training for their respective roles and responsibilities, including training within the first six months for all new employees with responsibilities under this program and follow-up training, as relevant, to address refinements to procedures, techniques and requirements.

Part 2.3.6 of the Draft Permit requires the Permittee to evaluate and track the number and type of identified illicit discharges, dry weather screening efforts and corrective actions taken to eliminate illicit discharges. The Permittee must maintain all necessary records and include a summary of actions taken during the reporting period in each Annual Report.

New Development, Redevelopment, and Construction Site Runoff [40 CFR §122.34(b)(4) and (5)]

Part 2.4 of the Draft Permit describes a set of requirements for all development and construction activities undertaken within the Naval Base Kitsap MS4 area. This requirement applies to all public and private development, including roads.

The Phase II stormwater regulations establish separate requirements for:

- construction – focused on preventing and abating pollution, such as soil erosion and sedimentation that occurs during the period of construction, and
- "post-construction" – focused on longer-term pollution prevention and abatement, such as increased runoff from the creation of impervious surfaces.

For ease of implementation, given policies and procedures on Naval Base Kitsap, these two requirements have been combined in the Draft Permit.

[13] Center for Watershed Protection, *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, 2004, https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf

[14] Herrera Environmental Consultants, Inc, *Illicit Connection and Illicit Discharge Field Screening and Source Tracking Guidance Manual* ,2013, http://www.wastormwatercenter.org/files/library/idicguidancemanual.pdf

[15] Condition of the June 20, 2019 Washington Department of Ecology Water Quality 401 Certification, Page 4, Part B.7

Part 2.4.1 of the Draft Permit requires the Permittee to provide adequate direction and oversight to regulated construction and industrial activities within the MS4 area. This requires the Permittee to ensure that all regulated construction activities[16] obtain coverage under the Construction General Permit (WAR12000F) and that all regulated industrial activities[17] obtain coverage under the Multi-Sector General Permit (WAR05F000).

Part 2.4.2 of the Draft Permit requires the Permittee to utilize enforceable mechanisms to control runoff from new development[18], redevelopment[19] and construction site projects. The permit stipulates the elements that must be included in the enforceable mechanism. As a condition of Ecology's 401 certification, this permit incorporates by reference the requirements from Appendix 1 of the 2013 Western Washington Phase II Municipal Stormwater Permit[20, 21] and also relies on the Permittee to obtain coverage, as applicable, under the Construction General Permit for discharge from construction activities (WAR120000F). Ecology has indicated that as a condition of its certification under CWA Section 401 that the Naval Base Kitsap MS4 permit must, in addition to the Western Washington Manual,

[16] *Regulated Construction Activities* include clearing, grading, or excavation that results in a land disturbance of greater than or equal to one acre, or that disturbs less than one acre if part of a larger common plan of development or sale that would disturb one acre or more. Any stormwater discharge from regulated construction activity requires a separate NPDES permit (WAR12000F). (See 40 CFR §122.26(b)(14)(x) and 40 CFR §122.26(b)(15) for the two regulatory definitions of stormwater associated with construction sites.)

[17] *Regulated Industrial Activities*, as used in this Permit, include the categories of industrial activity described at 40 CFR §122.26(b)(14)(i)-(ix) and (xi). Any stormwater discharge from regulated construction activity requires a separate NPDES permit (WAR05F000).

[18] *New development* means land disturbing activities, including Class IV General Forest Practices that are conversions from timber land to other uses; structural development, including construction or installation of a building or other structure; creation of hard surfaces; and subdivision, short subdivision and binding site plans, as defined and applied in Chapter 58.17 Revised Code of Washington (RCW). Projects meeting the definition of redevelopment shall not be considered new development.

[19] *Redevelopment,* for the purposes of this Permit, on a site that is already substantially developed (i.e., has 35% or more of existing hard surface coverage), means the creation or addition of hard surfaces; the expansion of a building footprint or addition or replacement of a structure; structural development including construction, installation or expansion of a building or other structure; replacement of hard surface that is not part of a routine maintenance activity; and land disturbing activities.

[20] Washington Department of Ecology, *Western Washington Phase II Municipal Stormwater Permit,* Appendix 1 – Minimum Technical Requirements for New Development and Redevelopment, 2013. https://ecology.wa.gov/DOE/files/7a/7a6940d4-db41-4e00-85fe-7d0497102dfd.pdf

[21] Condition of the June 20, 2019 Washington Department of Ecology Water Quality 401 Certification, Pages 2 and 3, Part B.3 and Part B.3.a

require implementation of control standards from the 2008 *Aviation Stormwater Design Manual*[22, 23], and the 2016 *Highway Runoff Manual*[24, 25], as relevant.

Part 2.4.3 of the Draft Permit establishes requirements for site plan review, inspections and the necessary accountability measures, e.g., enforcement actions, maintenance plans, recordkeeping. These are critical activities to ensure that standards and criteria are being properly implemented. All projects that are not yet well into the design phase with funding finalized on the effective date of the Permit, are subject to these requirements. The EPA acknowledges that some projects, even if actual construction has not yet commenced, may be too far into the process to fully incorporate these requirements. In that case, the Permittee must document the extent to which the Permit requirements have been incorporated into the project and why some elements were not followed.

Part 2.4.4, *Early Action Projects and Stormwater Infrastructure Investment Plan for Naval Base Kitsap*, supplements the requirements of Part 2.4, *New Development, Redevelopment, and Construction Site Runoff*, of the Draft Permit. Consistent with 40 CFR §122.34(c)(1) MS4 permits may contain more stringent terms and conditions to supplement the core requirements of an NPDES permit where such measures are determined to be necessary to protect water quality. Naval Base Kitsap – Keyport has been assigned specific waste load allocations for fecal coliform bacteria: 96% reduction in discharges to a small unnamed stream at Brownville Highway, and 87% reduction in discharges to Keyport Creek. The Liberty Bay TMDL reasonable potential analysis identified the implementation of BMPs as a critical component of meeting these WLAs. In addition, operations at both Keyport and Bangor include activities that are known[26] or are likely to discharge some of the pollutants identified by the Services as a threat to a number of species in the action area (see explanation above under Endangered Species, and Table 2.4.4 in the draft permit). 40 CFR § 122.34(b)(5)(i)(A) requires the development and implementation of strategies that include a combination of structural and/or non-structural controls to prevent or minimize water quality impacts. This generally takes the form of a strategy to retrofit existing infrastructure to reduce stormwater discharges and pollutants in stormwater discharges. As noted in the EPA's *MS4 Permit Improvement Guide*:

> *It is clear that we cannot protect the nation's waters without also addressing degradation caused by stormwater discharges from existing developed sites. For that reason, stormwater programs must include substantive retrofit provisions. It is possible and reasonable to significantly improve water quality in many urban receiving waters. This requires more than just a new development and*

[22] Washington Department of Transportation, *Aviation Stormwater Design Manual*, 2008, http://www.wsdot.wa.gov/NR/rdonlyres/587C0B2B-07B2-4D60-90DD-5E57E93F40E1/0/TableofContentsStormwater.pdf

[23] Condition of the June 20, 2019 Washington Department of Ecology Water Quality 401 Certification, Page 3, B.3.b

[24] Washington Department of Transportation, *Highway Runoff Manual*, 2016 supplement, https://www.wsdot.wa.gov/publications/manuals/fulltext/M31-16/highwayrunoff.pdf

[25] Condition of the June 20, 2019 Washington Department of Ecology Water Quality 401 Certification, Page 3, B.3.c

[26] See MSGP monitoring results in the administrative record for the draft permit. These tables will also be included in the Biological Evaluation that EPA will submit to the Services in partial fulfillment of ESA consultation.

> *redeveloped sites program, however, which at best can only hold the line. To actually improve the quality of receiving waters it is necessary to mitigate discharges from existing developed sites, which generally means implementation of measures to bring about the retrofit of stormwater control measures at existing sites to retain most stormwater on site.*[27]

To that end, the EPA is requiring the Permittee to develop: 1) a list of Early Action Projects (EAPs) that can be implemented during this permit term and 2) a comprehensive base-wide strategy for medium- to long-term investments in stormwater infrastructure. The permit proposes that the Permittee identify EAPs within one year of the effective date of the permit. Given that EAPs must be implemented sooner than those projects identified in the stormwater infrastructure investment plan (SIIP), i.e., starting as soon as the second year of the permit term, EPA acknowledges that the balance of EAPs may consist of operational or maintenance activities rather than projects that require design and construction stages, as well as major capital investments.

No later than the due date for the fourth Annual Report, the Permittee must submit to the EPA a comprehensive written plan that describes future investments and upgrades in Naval Base Kitsap stormwater infrastructure. These investments and upgrades must be optimally designed to reduce pollutants in MS4 discharges to protect water quality. The Stormwater Infrastructure and Investment Plan (SIIP) must include both operational and structural controls. The SIIP may be both iterative and adaptive but must include a reasonably aggressive schedule and include enough detail that the EPA can thoroughly evaluate it to ensure it meets both MEP and water quality objectives, and also can use it to inform future permit conditions. The Permittee will be expected to refine the SIIP over time to reflect new information and changing conditions at Naval Base Kitsap.

The Permittee shall coordinate with other Federal, State, Tribal and Local agencies, as well as with neighboring MS4 jurisdictions to optimize resource expenditures on common objectives. In particular, the Permittee shall coordinate to the extent practicable with the Services on pollution abatement efforts related to endangered species. The SIIP shall consider all available data collected by both the Permittee and others in order to effectively target the most serious problems. Low Impact Development approaches shall be given first consideration, where appropriate, as those approaches generally reduce stormwater volumes and pollutants simultaneously. The SIIP must document funding mechanisms and schedules. The schedule shall be structured so that design and funding of relevant infrastructure projects identified in the SIIP will be initiated during this permit term such that specific schedules for their completion may be incorporated into the next permit. [40 CFR §122.34(b)(5)(i)(A) and 40 CFR §122.44(d) and (k)]

Part 2.4.5 of the Draft Permit requires the Permittee to provide appropriate training for all staff with job duties that include implementation of the new development, redevelopment and construction requirements of the SWMP. New employee training must occur within 6 months, and follow-up training must be provided to all employees, as relevant, to ensure that all employees remain up-to-date with changing procedures, techniques and requirements.

[27] U.S. EPA, *MS4 Permit Improvement Guide*, 2010. See Chapter 5.8, *Retrofit Plan*. https://www.epa.gov/sites/production/files/2015-11/documents/ms4permit_improvement_guide1.pdf

Part 2.4.6 of the Draft Permit requires the Permittee to summarize in each Annual Report the activities undertaken pursuant to this requirement, including number of site plans reviewed, number and type of inspections conducted, any follow-up actions including enforcement actions, and training.

Pollution Prevention and Good Housekeeping for Operations & Maintenance [40 CFR §122.34(b)(6)]

Part 2.5 of the Draft Permit articulates requirements for the Permittee to control pollutants in stormwater discharges from a variety of activities specific to Naval Base Kitsap. To successfully implement this requirement the Permittee must develop operation, maintenance, inspection and training procedures for all areas and activities from which pollutants can be discharged to the MS4. The Permittee must include these specific measures in the SWMP document.

Part 2.5.1 requires the Permittee to establish maintenance standards for all permanent stormwater facilities to ensure that they remain fully functional. Maintenance time limits are established for categories of facilities. The EPA is not establishing specific schedules for maintenance activities that requires construction greater than $25,000. The EPA contends that these should be taken on a case-by-case basis, and that Permittees may address these larger projects through capital planning, which necessarily may have schedules that are difficult to predict. The EPA does expect the Permittee to undertake maintenance as expeditiously in all cases.

Part 2.5.2 requires annual inspections of all permanent stormwater facilities used for flow control and treatment, other than catch basins. Maintenance measures are required to ensure that these facilities meet the standards established in Part 2.5.1 of the Draft Permit.

Part 2.5.3 requires spot checks of permanent stormwater facilities, other than catch basins, after storms exceeding the 24-hour, 10-year event. A spot check, at a minimum, is a visual inspection, though it may also include things like determining the depth of solids accumulation, ensuring drains are clear, valves are functioning, or other assessments, as appropriate. Where damage is discovered, maintenance measures must be undertaken to ensure that these facilities meet the standards established in Part 2.5.1 of the Draft Permit.

Part 2.5.4 requires inspections of catch basins at least one time during the permit term, and remove accumulated materials as needed. Decant water and solids must be properly disposed of per the requirements in Part 5.13 (*Removed Substances*) of the Draft Permit.

Part 2.5.5 establishes that compliance with the inspection requirements of Part 2.5.2 and 2.5.4 will be based on Permittee inspection records. The Permittee is required to inspect 95% of all stormwater facilities used for flow control and treatment, and 95% of all catch basins by the permit expiration date.

Part 2.5.6 requires the documentation and implementation of management practices for a wide array of assets and activities in the MS4 area. The Permittee is required to ensure that the following activities are undertaken in ways that ensure the protection of water quality in the receiving waters: pipe cleaning; cleaning of culverts; ditch maintenance; street cleaning; road repair and resurfacing; snow and ice control; utility installation; pavement striping; roadside maintenance, including vegetation management; dust control; use of fertilizers, pesticides and herbicides; sediment and erosion control; landscape maintenance and vegetation disposal; trash management; and building exterior cleaning and maintenance.

Part 2.5.7, *Animal Waste at Naval Base Kitsap-Keyport and Naval Base Kitsap-Bangor*, supplements the requirements of Part 2.5.6, *Maintenance Practices*, of the Draft Permit. Consistent with 40 CFR §122.34(c)(1) MS4 permits may contain more stringent terms and conditions to supplement the core requirements of an NPDES permit where such measures are determined to be necessary to protect water quality. Because waters to which Naval Base Kitsap – Keyport and Naval Base Kitsap - Bangor operations discharge are impaired for fecal pathogens, in all areas of Naval Base Kitsap-Keyport and Naval Base Kitsap-Bangor that discharge to the MS4 and are reasonably expected to have notable domestic animal use, including housing, trailway/walkway and recreational areas, the Permittee shall install and maintain animal waste collection stations. This effort shall be coordinated with the education efforts required in Part 2.1.3 so that pet owners will be aware of the need to collect and properly dispose of pet waste, including proper utilization of the waste disposal stations. [40 CFR §122.34(b)(6)]

Part 2.5.8 establishes training requirements for employees or contractors who implement any of the operation and maintenance requirements in this Draft Permit. New employee training must occur within 6 months, and follow-up training must be provided to all employees, as relevant, to ensure that all employees remain up-to-date with changing procedures, techniques and requirements.

Part 2.5.9 requires the Permittee to develop stormwater pollution prevention plans (SWPPPs) within 2 years of the effective date of this permit for all equipment maintenance or storage yards and/or material storage facilities that are owned or operated by the Permittee in the MS4 Area, if those operations are not already covered under the NPDES Multi-Sector General Permit (MSGP).

Part 2.5.10 stipulates all reporting requirements to include: inspections, maintenance activities, explanations for failure to meet maintenance schedules and requirements, number of permanent stormwater facilities and catch basins subject to inspection requirements, and training undertaken.

d. Monitoring, Recordkeeping and Reporting Requirements

40 CFR § 122.34(d)(1) requires MS4 operators to evaluate program compliance, the appropriateness of BMPs in their SWMPs, and progress towards meeting their SWMP goals. Part 3.1, *Compliance Evaluation*, of the Draft Permit requires the Permittee to evaluate compliance with the terms and condition of the permit at least once per year, and report on this evaluation in each Annual Report.

The Permit provides two monitoring strategy options from which the Permittee shall choose. The first option involves development of a multi-faceted monitoring and assessment plan. The Plan must be submitted to EPA for approval. The second option consists of the Permittee participating in the Regional Stormwater Action Monitoring (SAM) program.

Option 1

Permitting authorities may prescribe a combination of physical, chemical and/or biological monitoring, or use of other environmental indicators, in order to support documentation of compliance with permit conditions and/or water quality standards [*see* 40 CFR § 122.34(d)(1) NOTE and 40 CFR § 122.44(i) and 40 CFR § 122.48(b)]. Within six months of the effective date of the Final Permit, Part 3.3, *Monitoring*, of the Draft Permit, requires the Permittee to develop and submit to the EPA a monitoring/assessment plan, should the Permittee choose this option. This plan should include a combination of wet weather discharge monitoring, water quality monitoring and biological, sediment and habitat benthic monitoring.

The plan should also include other appropriate program metrics that the Permittee determines are appropriate for the scope of activities at the facility, as well as the relevant water quality issues.[28, 29, 30, 31] For example, tons of solids and debris collected through street sweeping activities or catch basin clean-outs is one quantitative metric of pollutant removal.

The monitoring and assessment strategy should establish metrics that will: identify causes/sources of water quality impairments; provide robust data to inform program management decisions over the short- and long-term; and establish baselines against which future progress can be assessed. The EPA encourages the Permittee to balance resource expenditures on assessments with establishment of a robust set of long-term metrics that are truly informative. Some short-term monitoring for a wider array of pollutants may be important for purposes of identifying sources and causes of water quality impairments. However, when establishing long-term metrics, the EPA encourages the consideration of a relatively short list of monitoring and sampling analytes that: 1) serve as good water quality indicators, and 2) reflect local water quality impairments.

Part 3.3.2, *Reporting Additional Monitoring and Assessment Activities*, requires that any additional monitoring undertaken by the permittee be summarized and reported to the EPA. [40 CFR §122.34(d)]

The Draft Permit includes a list of pollutants (Table 3.3.5, *Pollutants of Concern* and Table 2.4.4, *Pollutants of Concern for ESA-listed Species*) that the Permittee must consider in developing the monitoring plan. The Permittee is not obligated to include assessment of all of these pollutants in the plan, but should be able to justify why some are not relevant to the MS4 discharges or receiving waters. The Permittee should also consider other pollutants of concern not included in the Table, if they are of special concern to relevant operations, or the installation's receiving waters. In particular, the Permittee must consider pollutants that pose threats to threatened and endangered species in Puget Sound and its tributaries. At the time of this public notice, EPA has initiated, but not concluded, consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service under Section 7 of the Endangered Species Act. However, initial conversations center on identifying whether or not specific pollutants of concern are present in MS4 discharges, and if so, prioritizing controls on those pollutants. For example, Southern Resident Killer Whales (*Orcinus orca*) have demonstrated a particular sensitivity to organochlorine pollutants in the food web[32]. Establishing whether or not these pollutants are in MS4

[28] U.S. EPA, *Evaluating the Effectiveness of Municipal Stormwater Programs*, 2008. EPA-833-F-07-010. https://www.epa.gov/sites/production/files/2015-11/documents/region3_factsheet_swmp.pdf

[29] U.S. EPA, *Measurable Goals Guidance for Phase II Small MS4s*. https://www.epa.gov/sites/production/files/2015-11/documents/measurablegoals.pdf

[30] California Stormwater Quality Association, Effectiveness Assessment guidance materials. https://www.casqa.org/effectiveness_assessment

[31] District Department of the Environment, *Revised Monitoring Program to meet the requirements of the District Department of the Environment's NPDES permit*, 2015. https://dcstormwaterplan.org/wp-content/uploads/DDOE_Revised_Monitoring_Program_DRAFT_FINAL_050815.pdf

[32] National Marine Fisheries Services, *Exposure to a Mixture of Toxic Chemicals: Implications for the Health of Endangered Southern Resident Killer Whales*, NOAA Technical Memorandum NMFS-NWFSC-135, 2016, https://www.nwfsc.noaa.gov/assets/25/8314_11302016_111957_TechMemo135.pdf

discharges in concentrations that could affect this species is likely to be a high priority outcome of ESA consultation.

The plan must: ensure that samples and measurements taken must be representative of the monitored activity; prescribe standard sample collection, preservation and analytical methods; and develop and follow appropriate quality assurance procedures. The Draft Permit provides the Permittee the flexibility to optimize the monitoring strategy among wet weather discharge monitoring at MS4 outfalls, in-stream water quality monitoring, and biological monitoring. However, the resulting strategy proposed to the EPA must use a combination of approaches that will successfully evaluate the effectiveness of the stormwater management program to minimize impacts from MS4 discharges on receiving waters. Following review of the Permittee's monitoring/assessment strategy, the EPA will either: approve the Plan as written and notify the Permittee to begin implementation or notify the Permittee that certain modifications are required and the schedule for revisions and implementation. The Permittee must begin implementation of the monitoring and assessment activities no later than 60 days following the EPA's written notice that the monitoring plan has been approved.

Option 2

Part 3.4, *Stormwater Action Monitoring*, provides the Permittee a second option for monitoring. The Stormwater Action Monitoring (SAM)[33] is a collaborative, regional stormwater monitoring program in western Washington that is funded by more than 90 cities and counties, the ports of Seattle and Tacoma, and the Washington State Department of Transportation. Additional funds and in-kind are contributed by other Washington state agencies, federal agencies, local businesses, and community volunteers. Participation in SAM would contribute to consistent tracking of pollutants, control efficacies and program effectiveness across the Puget Sound region and amplify the value of the investments in monitoring.

The Navy has expressed interest, but reservations about participation in SAM. Primarily because of the way in which Navy funds are allocated, direct funding of SAM may pose notable challenges. However, the Navy also has resources that could be provided *in lieu* of direct funding and may be able to provide support for special studies or other elements of the SAM research plan. Therefore, EPA is proposing this option, along with the flexibility for the Permittee and the SAM network to negotiate participation terms that are acceptable to all parties. Should the Permittee opt for this avenue, EPA must be notified with 6 months of the effective date of the Permit, and participation in SAM must be formalized with 1 year of the effective date of the Permit.

Part 3.6*, Recordkeeping*, of the Draft Permit requires the Permittee to retain all records documenting implementation of the SWMP in a location and format that are accessible to the EPA. The Permittee must provide records to the EPA upon request and make them available to public upon request. [40 CFR § 122.34(d)(2) and 40 CFR § 122.48(c)]

Part 3.7, *Reporting Requirements*, of the Draft Permit requires that all reports and other documents be submitted to the EPA.

[33] Washington Department of Ecology, Stormwater Action Monitoring Program, https://ecology.wa.gov/Regulations-Permits/Reporting-requirements/Stormwater-monitoring/Stormwater-Action-Monitoring

Consistent with the electronic reporting requirements that go into effect on December 21, 2020 (40 CFR §127), any reports submitted after that time must be submitted electronically. On October 22, 2015, the EPA finalized a rulemaking that modernizes Clean Water Act reporting for municipalities, industries, and other facilities by converting to an electronic data reporting system. The final rule requires regulated entities and state and federal regulators to use existing, available information technology to report data required by the NPDES permit program electronically instead of filing written paper reports. The Permittee must sign and certify all electronic submissions in accordance with the requirements of Part 6.5, *Signatory Requirements*, of the permit.

The first reporting period will cover the period from the effective date of the permit until December 31, 2020. The first Annual Report must be submitted to the EPA no later than February 28, 2021. Subsequent annual reporting periods will align with calendar years, i.e., January 1 through December 31, and are due no later than the February 28th following the end of the reporting period. The EPA notes that these dates are premised on this permit being finalized before or around the end of calendar year 2019. If finalization of the permit occurs much later, the EPA will adjust the reporting schedules in the Final Permit.

The Permittee is required to submit Annual Reports to the EPA summarizing SWMP activities, progress, set-backs and data, as well as any other documents or information required by the permit [40 CFR § 122.34(d)(3)]. The Annual Report must reflect the status of the Permittee's implementation of the stormwater management program per the requirements of the permit during the relevant reporting period. All monitoring data collected during the reporting period must also be submitted to the EPA, per the requirements of Part 3.7.3, *Monitoring Reports*, of the Draft Permit [40 CFR § 122.34(d)(3)(ii)].

The Annual Report must follow the format provided in Appendix B, *Annual Report Template*. Pursuant to the implementation of the electronic reporting rule, the EPA will likely provide a modified Annual Report format during the permit term. The EPA anticipates a modification to the format in order to align with the structure of the electronic reporting system, which will not be completed prior to finalization of this permit. There will be no changes to the required reporting elements, thus a formal modification of the permit is not anticipated.

e. Required Response to Violations of Water Quality Standards

To provide SWMP implementation expectations for Naval Base Kitsap that are consistent with the expectations imposed on other regulated MS4 naval operators the region, the EPA has proposed corrective action provisions in Part 4 of the Draft Permit that are comparable to the provision in the Joint Base Lewis-McChord Permit[34]. Such corrective action, or adaptive management, provisions have

[34] U.S. EPA, *Joint Base Lewis-McChord MS4 Permit*, 2013. *See* Part II.D, *Required Response to Violations of Water Quality Standards*.
https://yosemite.epa.gov/oa/eab_web_docket.nsf/Attachments%20By%20ParentFilingId/002B82A5F1FFB765852 57C1A005FFB8A/$FILE/JBLM%20MS4%20NPDES%20Permit%20(Attachment%20A).pdf

also been included in other stormwater discharge permits issued by the EPA, most notably in the MSGP[35].

The EPA notes the distinction between a violation of water quality standards and a violation of one or more provision of the permit. A water quality standards exceedance may or may not be the result of failure to adequately implement the permit. Once issued, noncompliance with any of the requirements of the Final Permit will constitute a violation of the Clean Water Act. The failure to report to the EPA (Part 4.1), or to evaluate SWMP implementation and identify management response actions upon notification from the EPA (Part 4.4), would constitute a violation of the permit and the Clean Water Act. Any actions and time periods specified by the EPA for remedying noncompliance as discussed in Part 4.4.2 does not absolve the Permittee of the initial underlying noncompliance; in addition, the EPA reserves its enforcement authority to respond to a violation of water quality standards even if the Permittee conducts the adaptive management response activities.

f. Standard Permit Conditions

Part 5, *Compliance Responsibilities*, and Part 6, *General Requirements*, of the Draft Permit contain standard regulatory language that must be included in all NPDES permits, consistent with 40 CFR § 122.41. Because they are regulations, they cannot be challenged in the context of an NPDES permit action. This standard regulatory language covers requirements such as monitoring, recording, reporting requirements, compliance responsibilities, and other general requirements. Part 7, *Definitions*, defines technical and regulatory terms used in the permit.

g. Summary of Appended Information

Appendix A – Permit Area Description for Naval Base Kitsap
The table in Appendix A provides summary information on U.S. Navy properties and receiving waters covered by this permit.

Appendix B –Annual Report Template
The EPA has provided the Annual Report Template to assist the Permittee in development of the Annual Report. The Permittee is not obligated to utilize the Template, as long as all of the elements included in the Template as specified in the permit are included in the Annual Report. The Final Permit will provide the Annual Report Template as a fillable pdf for ease of use by the Permittee.

Appendix C – Determining Construction Site Sediment Damage Potential
This rating system allows objective evaluation of the potential to discharge sediment from a specific construction or development site. Part 2.4.3.2 of the Draft Permit requires the Permittee to perform evaluations in advance of any construction or development activity, and inspect prior to any clearing activities, those sites with high potential to discharge.

Appendix D – Street Waste Disposal

[35] U.S. EPA, *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity*, 2015. *See* Part 4, Corrective Actions. https://www.epa.gov/sites/production/files/2015-10/documents/msgp2015_finalpermit.pdf

Part 2.5.4 and Part 5.13 of the Draft Permit require that all decant water and solids removed from catch basins must be disposed of in a manner such as to prevent pollutants from entering waters of the U.S., in accordance with the procedures included in Appendix D. These procedures provide for both street waste solids and street waste liquids.

Appendix A – Maps of Naval Base Kitsap

Figure 1: Naval Base Kitsap MS4 Overview

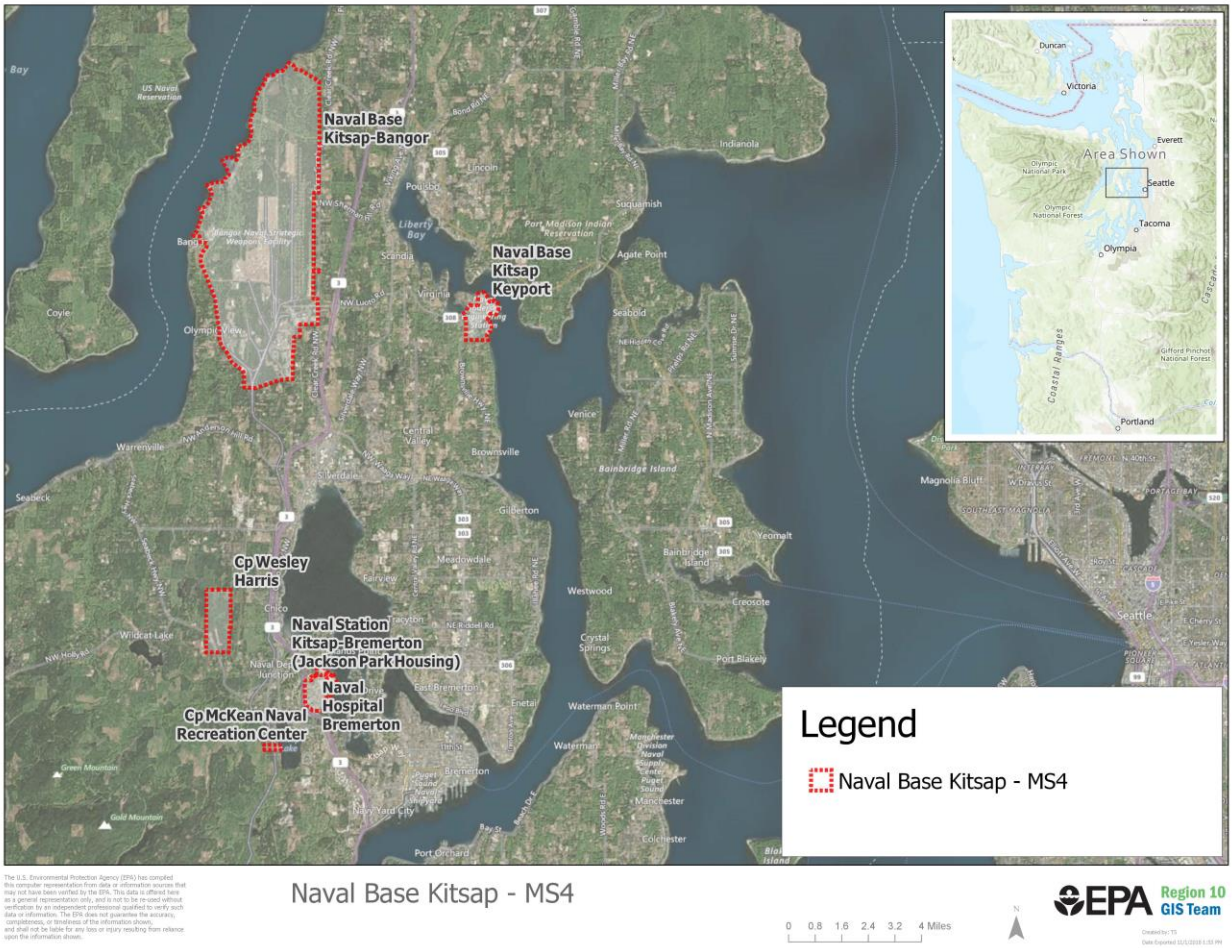

Figure 2. Detail of Naval Base Kitsap – Bangor

Figure 3. Detail of Naval Base Kitsap – Keyport

Figure 4. Detail of Naval Base Kitsap – Naval Hospital Bremerton/Jackson Park Housing Complex

Figure 5. Detail of Naval Base Kitsap – Camp Wesley Harris

Figure 6. Detail of Naval Base Kitsap – Camp McKean