Annual Report
Naval Base Kitsap
Municipal Separate Storm Sewer System (MS4)
Permit WAS026646

Reporting Period

- ☒ Year 1 Reporting Period: effective date of the permit – January 31, 2022
- ☐ Year 2 Reporting Period: February 1, 2022 – January 31, 2023
- ☐ Year 3 Reporting Period: February 1, 2023 – January 31, 2024
- ☐ Year 4 Reporting Period: February 1, 2024 – January 31, 2025
- ☐ Year 5 Reporting Period: February 1, 2025 – January 31, 2026
- ☐ Other _____

General Information

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Stormwater Website URL: https://www.navfac.navy.mil/navfac_worldwide/pacific/fecs/northwest/about_us/northwest_documents/ccr.html

Signature and Certification

Certification: *"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

Signature: _____ Date: 3/22/2022

Printed Name: RICHARD N. MASSIE

Signatory Title: CO NAVAL BASE KITSAP, CAPTAIN USN

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Section I. Permittee Responsibility (Part 1):
If you answer "NO" to any of these questions, please explain in the Comments section.

Year 1 Annual Report		
1.	YES ☐ NO ☒	Has the Permittee submitted to EPA for consideration any documents, plans, programs or program summaries that the Permittee believes to be equivalent to a required control measure or control measure? *If the answer is "YES", use the Comments section to briefly list the one or more documents, plans or programs you have requested be considered as an Equivalent Document, Plan or Program. Cite the relevant Permit provision for each.* (Part 1.5)
All Reporting Years		
2.	YES ☐ NO ☒	Do you, the Permittee, share Permit implementation responsibility with one or more Outside Entity for compliance with the Permit? *If yes, please explain in the Comments section*. (Part 1.4.1))
3.	YES ☐ NO ☐	If yes, is the agreement with Outside Entity(s) formalized in a written and binding agreement between parties? (Part 1.4.1)
4.	YES ☐ NO ☐	If yes, is the agreement with Outside Entity(s) described/cited in the Stormwater Management Program (SWMP) Document? (Part 1.4.1)
5.	YES ☒ NO ☐	Have you established and maintained relevant enforceable mechanisms, to control pollutant discharges into and from the MS4 and to meet the requirements of this Permit? (Part 1.4.2)
6.	YES ☒ NO ☐	Are you maintaining system(s) to track SWMP data and information? (Part 1.4.4)

Permittee Responsibility and Equivalent Documents, Plans or Programs Comments:

5. Please refer to the answer to #18 below for details.

Section II. Stormwater Management Program (SWMP) Control Measures (Part 2)
Please answer all questions.

Education and Outreach on Stormwater Impacts (Part 2.1)
If you answer "NO" to any of these questions, please explain in the Comments section.

7.	YES ☒ NO ☐	Have you listed and publicized means for the public and Permittee personnel to report spills and other illicit discharges? (Part 2.1.1.1)
8.	YES ☒ NO ☐	Have you informed target audiences of the environmental impacts associated with illegal discharges and improper disposal of waste and how to report them? (Part 2.1.1.2)
9.	YES ☒ NO ☐	Have you selected specific education and outreach topics to build general awareness and effect behavior change? *Please list these topics in the Comments section.* (Part 2.1.1.3)
10.	Narrative	*In the Comments section,* p*lease summarize your activities and accomplishments as part of the Southern Resident Killer Whale Outreach and Education efforts.* (Part 2.1.2)
11.	YES ☒ NO ☐	Have you conducted public education and outreach behaviors specifically on bacterial pollution problems? (Part 2.1.3)
12.	YES ☐ NO ☒	Have you assessed, or participated in efforts to assess, the understanding and adoption of intended behaviors by the target audiences for at least one of the topics? *In the Comments section,* p*lease summarize your efforts to assess the education and outreach activities conducted during the reporting period, and how this information is being utilized to improve the public education and outreach program efforts.* (Part 2.1.4) *Please also include one or more example of successful education/outreach.* (Part 2.1.4)

Education and Outreach Comments:

7. Infographics have been prepared and are being distributed periodically across the installation in the form of posters, flyers, and magnets (Attachment 1).

8. Information regarding the effects of illicit discharges and the improper disposal of waste has been added to the Environmental Awareness Training plan for all personnel. Personnel tasked with direct maintenance of the stormwater system received training to identify illicit discharges on 30 Nov 2021. Base housing management personnel and residents of base housing received virtual training (due to Navy COVID restrictions), on 13 Jan 2022 and 26 Jan 2022.

9. The primary education and outreach topic for the first permit year is appropriate spill prevention practices. An agreement with the grounds maintenance contractor to provide video training (due to Navy COVID restrictions) to workers on best management practices for avoiding illicit discharges was reached on 4 Oct 2021. The grounds maintenance contractor reported 17 workers were trained. Training was also provided to base housing management and base housing residents, as part of the training described in #8 above. Educational refrigerator magnets, instructing and reminding unaccompanied housing residents that vehicle maintenance in installation parking lots was not permitted, were also distributed to minimize vehicle fluids from leaking or spilling (Attachment 2). The Environmental Awareness Training plan for all personnel,

was updated to include best management practices to prevent spills and illicit discharges. For the second year of the permit, educational outreach will emphasize proper pet waste management.

10. Naval Facilities Engineering Systems Command Northwest (NAVFAC NW) worked with National Marine Fisheries Service (NMFS) to develop and deliver a training program regarding stormwater threats to Southern Resident Killer Whales for target audiences. Discussions with NMFS started in July 2020 and notes were provided to NMFS detailing the permit requirements. After months of coordination with NMFS, training for Navy MS4 and natural resources program personnel in the Northwest Region was accomplished on 26 Jan 2022 through a virtual platform. The training covered SRKW monitoring and mitigation strategies, their status under the Endangered Species Act, habitat, prey, chemical threats such as PCP, PCB, DDT, PBDEs, persistent organic pollutants, bioaccumulation of chemicals, and the decline of chinook and coho salmon due to poor stormwater quality. Information from the training will continue to be used to enhance public education efforts. In 2020, prior to the MS4 permit being issued to NBK, four personnel within the region attended orca-specific training at Sound Waters University.

11. Pet waste control informational pamphlets were distributed to housing residents (Attachment 3).

12. Education regarding proper spill reporting on base in order to prevent stormwater pollution has resulted in an increase in the number of reported spill notifications and cleanup responses beyond 2019-2020. Therefore, a behavioral change has occurred. NBK will continue to measure and document the understanding and adoption of spill prevention practices during the second year of the permit.

Public Involvement/Participation (Part 2.2)
If you answer "NO" to any of these questions, please explain in the Comments section.

13.	YES ☐ NO ☐ NA ☒	Have you complied with applicable federal notice requirements, as relevant? (Part 2.2.1)
14.	YES ☒ NO ☐	Have you conducted one or more meetings to coordinate among appropriate staff, managers and others who play a role in Permit implementation? *Briefly describe meeting(s), participants and topics in the Comments section.* (Part 2.2.2)
15.	Narrative	*In the Comments section, please describe any engagement with affected entities in setting priorities for the storm water program*. (Part 2.2.2)
16.	YES ☐ NO ☒	Have you sponsored at least twice during the Permit term volunteer activities designed to actively engage residents and/or employees to better understand stormwater pollution? *Please describe these events and activities in the Comments section.* (Part 2.2.4)

Public Involvement/Participation Comments:

14. Immediately following permit issuance, relevant Navy stakeholders met in order to introduce permit requirements and to coordinate implementation actions. Stakeholders included Environmental compliance staff, base housing management, public works and utilities. During the Navy's annual Construction Day on 12 April, Environmental personnel conducted training with NAVFAC NW Construction & Design Division and Naval Base Kitsap (NBK) Facilities Engineering & Acquisition Division. These personnel responsible for the management, design, and construction of facility projects on base were educated on the requirements of the permit. Engagement with those groups, as well as the groups managing facility planning and maintenance continued during the development of the SWMP. Coordination with the contractors tasked with maintenance of stormwater structures at NBK has been ongoing, in order to ensure implementation of the maintenance standards and reporting requirements of the permit. Beginning 28 Oct 2021, additional meetings were held regarding improvement of future Navy stormwater management corporate business practices and funding roles and responsibilities.

Monthly stormwater meetings are held with key stormwater management personnel at Naval Station Everett, Naval Air Station Whidbey Island, and Naval Base Kitsap. Consistent monthly meetings were started in February 2020, and have continued since. These monthly meetings are used to discuss any topic related to stormwater, and to share best practices and lessons learned regarding stormwater management and implementation of the MS4 permit, MSGP, and CGP. The meetings provide a collaborative approach to stormwater management in the NW Region. Below is a summary of meetings held within the first year of the MS4 permit:

Year	Month	Short summary of meeting topics
2021	February	Upcoming MS4 construction training, SAM letters of intent, IDDE, EAP sampling MSGP SWPPP
	March	Construction site contract language, EAP sampling, stormwater trainings available, education and outreach materials
	April	EAP sampling, IDDE, education materials
	May	SAM update, EAP sampling, future funding discussions
	June	Funding discussions, SWMPs, EAP sampling
	July	SWMPs, EAP sampling, MSGP sampling
	August	No meeting held due to scheduling conflicts
	September	SWMPs, EAP sampling status- weather update, education and pet waste materials
	October	SWMPs, annual report, spill response posters
	November	Meeting not held due to holidays, combined with December meeting on 12/1 instead.
	December	SAM effectiveness study, 6PPD, methods of outreach, SWMPs, Annual reports, construction language, EAP sampling results, Southern Resident Killer Whale (SRKW) Training update, MSGP annual report,
2022	January	SAM effectiveness study, 6PPD, SWMPs, annual report status including EAP reports, construction training, SRKW training, MSGP annual report

15. NBK actively engages with the Native American tribes regarding environmental issues and to ensure that tribal treaty rights are maintained within the Puget Sound and Hood Canal. In order to protect water quality, NBK routinely monitors stormwater and conducts dry weather surveys to detect illicit discharges. Implemention of additional education, additional construction runoff controls, and additional maintenance requirements as part MS4 permit, should further protect and enhance local water quality. During 2022, NBK is executing two construction projects to repair and modernize portions of the sanitary sewer system at NBK Bangor and the Jackson Park Housing complex. These projects represent major investments on the Navy's part to minimize overflow and leaks from the sanitary sewer system and improve local water quality. NBK's participation in the Stormwater Action Monitoring Program provides coordination with other entities and allows NBK resources to be applied to the highest priorities across the region.

16. This report covers activities for 2021, which is the first year of the five-year permit term. Group volunteer activities were limited to an extent during 2021 due to COVID safety restrictions. NBK stormwater program managers are engaged with NBK Public Affairs and the installation volunteer coordinator to develop ongoing volunteer activities to educate residents and improve water quality. These activities are projected to begin during 2022 (permit year 2). During 2021, despite COVID restrictions, NBK personnel provided over 200 work-hours of volunteer labor at community base clean-up events. The addition of stormwater education to these ongoing events, regarding how the cleanup of trash and debris helps to lessen stormwater pollution and improve water quality, will be implemented during 2022.

Illicit Discharge Detection and Elimination (Part 2.3)

If you answer "NO" to any of these questions, please explain in the Comments section.

17.	YES ☐ NO ☐ NA ☒	Have you developed updated maps of the MS4 within the Permit Area that include all of the features listed in Part 2.3.1 of the Permit? *For Annual Reporting Years 1 through 4, you may check NA if these maps have not yet been completed.* (Part 2.3.1)
18.	YES ☒ NO ☐ NA ☐	Do you effectively prohibit non-storm water discharges into the MS4 (except those authorized in Part 1.3.4 of this Permit) through effectively robust policies and procedures? *For Annual Reporting Years 1 and 2, you may check NA if you have not yet implemented effective policies and procedures.* (Part 2.3.2)
19.	YES ☒ NO ☐ NA ☐	For any discharges of potable water, have you dechlorinated to a total residual chlorine concentration of 0.1 ppm or less, pH-adjusted, and volumetrically and velocity controlled to prevent resuspension of sediments in the MS4? (Part 2.3.2.2.1)
20.	YES ☒ NO ☐ NA ☐	Have discharges from lawn watering and other irrigation runoff been minimized through public education and water conservation efforts? Part 2.3.2.2.2)
21.	YES ☐ NO ☐ NA ☒	For any discharges of swimming pool, spa and hot tub waters, have you dechlorinated to a total residual chlorine concentration of 0.1 ppm or less, pH-adjusted and re-oxygenized if necessary, volumetrically and velocity controlled to prevent resuspension of sediments in the MS4, thermally controlled to prevent an increase in temperature of the receiving waters, and prohibited the discharge of pool cleaning wastewater and filter backwash? (Part 2.3.2.2.3)
22.	YES ☒ NO ☐ NA ☐	Have discharges from street and sidewalk wash water, water used to control dust, and routine external building wash down that does not use detergents been minimized through public education and water conservation efforts? (Part 2.3.2.2.4)
23.	YES ☐ NO ☒ NA ☐	For any discharges of accumulated stormwater from utility vaults, have you conducted sampling to verify that no pollutants cause or contribute to water quality impairments, AND visually verified prior to any discharge, that there are no visible sheens or solids in the discharge? (Part 2.3.2.2.5)
24.	YES ☐ NO ☒	For any discharges of accumulated stormwater from secondary containment structures, have you conducted sampling to verify that no pollutants cause or contribute to water quality impairments, AND visually verified prior to any discharge, that there are no visible sheens or solids in the discharge?? (Part 2.3.2.2.6)
25.	YES ☒ NO ☐	Are you implementing a targeted IDDE program at Naval Base Kitsap-Keyport and Naval Base Kitsap-Bangor for fecal coliform source identification in sub-basins draining to

		Liberty Bay and Clear Creek, respectively? (Part 2.3.3)
26.	YES ☒ NO ☐	Does the program described in the SWMP document include procedures for locating priority areas likely to have illicit discharges, including areas where complaints have been recorded and areas with storage of large quantities of materials that could result in spills and areas where storage, usage, releases or contamination of any pollutant in Table 2.4.4 is or has occurred? (Part 2.3.4.1)
27.	YES ☒ NO ☐ NA ☐	Do you conduct a dry weather analytical and field screening monitoring program to identify non-stormwater flows from stormwater outfalls? *For Annual Reporting Years 1 and 2, you may check NA if you have not yet begun dry weather field screenings. (Part 2.3.4.2.1)*
28.	YES ☐ NO ☐ NA ☒	For Annual Reporting Year 5 only, have you completed field screening of at least 75% of all MS4 outfalls located within the Permit Area? *For Annual Reporting Years 1 through 4, you may check NA unless you have completed screening of 75% of the MS4 outfalls in the Permit Area.* (Part 2.3.4.2.2)
29.	YES ☒ NO ☐	Are your screening methods/protocols consistent with *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, Center for Watershed Protection, October 2004, or another methodology of comparable effectiveness? (Part 2.3.4.2.3)
30.	YES ☒ NO ☐	Do you have and implement procedures for characterizing the nature of, and potential public or environmental threat posed by, any illicit discharges which are found by or reported to the Permittee? (Part 2.3.4.3)
31.	YES ☒ NO ☐	Do these procedures include the evaluation of whether the discharge must be immediately contained and the steps to be taken for containment of the discharge per the stipulations in Part 2.3.4.3? (Part 2.3.4.3)
32.	Narrative	*In the Comments section, please summarize all illicit discharge responses, including responses to spills and recurring discharges. Also summarize any investigations and referrals as detailed in Part 2.3.4.3.2.* (Parts 2.3.4.3.1, 2.3.4.3.2 and 2.3.4.3.3)
33.	YES ☒ NO ☐	Do you have and implement procedures for notification of affected parties, including immediate notification of the spills and illicit discharges and ongoing updates about abatement measures and possible impacts? (Part 2.3.4.4)
34.	Narrative	*In the Comments section, please summarize all notifications to downstream operators of MS4s, shellfish beds/fisheries, agricultural/livestock operations, drinking water systems (public or private) or other affected entity of spills or other non-stormwater discharges that may impact those systems.* (Part 2.3.4.4.1) *Please include in the description all outreach, discussions and/or information exchanges regarding the impacts of discharges and the status of illicit discharge elimination activities.* (Part 2.3.4.4.2)

35.	YES ☒ NO ☐	Do you have and implement procedures for tracing sources of illicit discharges, including visual inspections, opening manholes, using mobile cameras, collecting and analyzing water samples, and other procedures, as appropriate? (Part 2.3.4.5)
36.	YES ☒ NO ☐	Do you have procedures for eliminating illicit discharges, including scheduling and implementing remedial measures and other safeguards to ensure the discharge does not recur? (Part 2.3.4.6)
37.	YES ☒ NO ☐	Do these procedures include initiation of an investigation within 21 days of a report or discovery of an illicit connection to determine the source, nature and volume, and responsible party? (Part 2.3.4.6.1)
38.	YES ☒ NO ☐	Do these procedures include initiation of action to eliminate the illicit connection within 45 days of confirming the connection? (Part 2.3.4.6.1)
39.	YES ☒ NO ☐	Have all staff responsible for investigating, identifying and eliminating illicit discharges, spills, and illicit connections into the MS4 received program-specific training? (Part 2.3.5)
40.	Narrative	*In the Comments section, please describe any training provided during this reporting period, including new employee training and follow-up training*. (Part 2.3.5)
41.	Narrative	*In the Comments section, please include a general summary of the results of dry weather screening program activities conducted over the preceding reporting period, including number and type of illicit connections identified, dry weather screening efforts, and location and efforts to correct identified illicit discharges.* (Part 2.3.6)

Illicit Discharge Detection and Elimination Comments:

17. NAVFAC NW awarded an 18-month contract to update stormwater maps for all Navy installations across the NW region.

18. An NBK instruction for clean water has been coordinated among all stakeholders on the installation and has been submitted for official publication. Stakeholders have adopted the requirements of the instruction in advance of publication. The SWMP will be submitted to EPA simultaneously with this report. Referenced by the NBK instruction, it details practices and procedures, including allowable discharges.

20. Most of the existing irrigation systems at NBK have been turned off and these areas have been xeriscaped. Water consumption for NBK is well ahead of a goal of 36% reduction in water intensity (usage per square foot of buildings) from fiscal year 2007 to fiscal year 2025 (Attachment 4). Housing residents are provided information on water conservation when they move in. Environmental personnel provided training to housing residents on avoiding illicit discharges associated with lawn watering as part of the training described in #8 above.

22. An agreement with the grounds maintenance contractor to provide best management practices to provide video training to workers on best management practices to avoid illicit discharges was reached on 4 Oct 2021. The contractor reported 17 workers were trained.

Training was also provided to housing management and housing residents, as part of the training detailed in #8 above.

23. An illicit discharge from a utility vault by a construction contractor was discovered 19 Sep 2022. The discharge had a sewage smell and contained fine sediment. The receiving catch basin contained filter fabric for erosion/sediment control. The contractor wet vacuumed the site and pumped out the catch basin and removed and disposed of the sediment properly. No discharge from the outfall was detected. A comprehensive procedure for draining vaults is included in the Stormwater Management Plan and will be implemented during the second permit year. Current practice is for personnel to not discharge utility vaults directly to storm drains, but to infiltrate clean and clear accumulated stormwater from utility vaults to a vegetated area. If accumulated stormwater is not clean and clear, personnel are trained to contact Environmental for evaluation and appropriate disposal guidance.

24. A procedure for draining secondary containment is included in the Stormwater Management Plan and will be implemented during the second permit year. Current practice is for personnel to not discharge utility vaults directly to storm drains, but to infiltrate clean and clear accumulated stormwater from utility vaults to a vegetated area. If accumulated stormwater is not clean and clear, personnel are trained to contact Environmental for evaluation and appropriate disposal guidance.

25. See attached Dry Weather Survey Summary (Attachment 5).

27. See attached Dry Weather Survey Summary (Attachment 5) and Dry Weather Analytical Summary (Attachment 6).

29-31. Please reference SWMP for methods, procedures and protocols.

32. On 25 Aug 2021, the Installation Environmental Office was informed of an ongoing potable water discharge from an air conditioning chiller discharging into the storm sewer. Environmental contacted Facilities Management and notified them of the MS4 permit requirement to initiate action within 45 days to eliminate the illicit connection. Action was formally initiated at the 16 Sep 2021 Work Induction Board where it was determined that this work was beyond in-house capabilities, so the repair would need to be contracted out. The contract was awarded 9 Nov 2021, and the contractor submitted a schedule on 13 Dec 2021 indicating a completion date of 31 Mar 2022. Discharge from the chiller has decreased significantly since the end of the cooling season. Maintenance personnel have determined that the chiller cannot be taken off-line without turning heat off for the entire facility.

A section of sanitary sewer piping downstream of the Industrial Waste Treatment Plant and Waterfront Security Forces Facility was the cause of sewage overflows on 22 May 2021 (to ground not to storm drains) and 21 Sep 2021. The overflow on 21 Sep 2021 reached the storm drain and resulted in a reportable sanitary sewer release in accordance with State Waste Discharge Permit (SWDP) ST-7363. It has been determined that there is a discontinuity in this gravity flow line, which causes debris to catch and cause pipe blockages, resulting in overflows from the upstream manholes. Two projects were awarded 31 Aug 2021 to address portions of degraded sanitary sewer infrastructure at NBK Bangor, Jackson Park Housing and Bremerton Naval Hospital. The projects will initially scope, inspect and clean all affected portions (pipes, manholes, and other components) and then repair, line or replace those sections currently identified in the scope. The projects will result in a more reliable and properly functioning

sanitary sewer conveyance system and minimize deficiencies and failures and decrease the risk and frequency of sanitary sewer overflows and unintentional releases. The contractor broke ground on the NBK-Bangor project 31 Jan 2022 and work is scheduled to be completed 13 Sep 2022. Until the project is completed, the section of sewer line is being maintained monthly by water jet cleaning to remove obstructions and minimize the likelihood of additional overflows.

Also see #23 above.

33. Procedures for notification of spills and discharges of potentially environmentally hazardous substances are outlined in the NBK Oil Spill Prevention, Control, and Countermeasure (SPCC) Plan, the Navy Region Northwest Oil and Hazardous Substance Integrated Contingency Plan, and NBK Wastewater Release Response and Reporting Procedures.

34. An estimated overflow of 50 gallons from a clogged sanitary sewer line on Runner Road at NBK Bangor into a storm drain was reported to outside regulatory agencies in accordance with SWDP ST-007363, Section S.3.F as implemented by NBK Wastewater Release Response and Reporting Procedures. Reports were made to WADOE NW Regional Office (ERTS 709468), Central Kitsap Wastewater Treatment Plant, Washington State Department of Health Shellfish Program, and the Kitsap County Health District.

35-38. Reference SWMP for procedures.

39-40. Prior to MS4 permit issuance, both NBK stormwater quality program managers received Certified Stormwater Inspector training, which includes illicit discharge, detection and elimination (IDDE) training. Key NBK personnel who received awareness training to detect and report illicit discharges includes grounds maintenance personnel (ongoing since 4 Oct 2021), stormwater maintenance personnel (30 Nov 2021), and housing management and maintenance personnel (13 Jan 2022). Training regarding illicit discharge detection and reporting procedures was included in the 25 January 2022 NBK town hall meeting for base residents. Illicit discharge detection and reporting training has also been added to the Environmental Awareness training for all personnel.

41. See attached Dry Weather Survey Summary 2021 (Attachment 5).

New Development, Redevelopment, and Construction Site Runoff Control (Part 2.4)
If you answer "NO" to any of these questions, please explain in the Comments section.

42.	YES ☒ NO ☐	Does the SWMP document describe, and are you implementing, a program to reduce pollutants in stormwater runoff to the MS4 from all construction, new development and redevelopment project site activities in the Permit Area, including roads? (Part 2.4)
43.	YES ☒ NO ☐ NA ☐	During this reporting year have you provided adequate oversight to "regulated construction activities" and "regulated industrial activities" to ensure that all regulated activities obtained coverage under the appropriate stormwater permits? *Only choose NA if there were none of these activities in the Permit Area during this reporting year.* (Part 2.4.1)
44.	YES ☒ NO ☐	Have you implemented an enforceable mechanism to address runoff from new development, redevelopment and construction site projects to include the minimum requirements, thresholds and definitions? (Part 2.4.2.1)
45.	YES ☒ NO ☐	Does the enforceable mechanism include all of the criteria listed in Part 2.4.2.2 of the Permit? (Part 2.4.2.2)
46.	YES ☐ NO ☒	Have you had any equivalent criteria approved by EPA for use in stormwater controls from new development, redevelopment, and construction site runoff? *If so, in the Comments section please describe how these have been utilized during this reporting year.* (Part 2.4.2.4)
47.	YES ☒ NO ☐	Have you implemented policies and procedures, including contract mechanisms, to ensure review of all stormwater site plans for proposed development activities? (Part 2.4.3.1)
48.	YES ☒ NO ☐ NA ☐	Do you inspect, prior to clearing and construction, all development sites that have a high potential for sediment transport as determined through plan reviews based on definitions and requirements of Appendix C of the Permit? *Only choose NA if there were none of these activities in the Permit Area during this reporting year.* (Part 2.4.3.2)
49.	YES ☒ NO ☐ NA ☐	Do you inspect all development sites during construction to verify proper installation and maintenance of required erosion and sediment controls? *Only choose NA if there were none of these activities in the Permit Area during this reporting year.* (Part 2.4.3.3)
50.	YES ☒ NO ☐ NA ☐	During this reporting year, did you take the necessary enforcement actions, as relevant, based on the results of these inspections? *If yes, please describe in the Comments section. Only choose NA if there were no construction activities in the Permit Area or you did not identify any failures to properly install or maintain the required controls.* (Part 2.4.3.3)
51.	Narrative	*In the Comments section please document what percentage of all permanent stormwater treatment and flow control*

		BMPs/facilities and catch basins in new developments were inspected every six months prior to 90% of the common plan of development being constructed during this reporting year? (Part 2.4.3.4)
52.	YES ☐ NO ☐ NA ☒	Do you inspect all development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater facilities? *Only choose NA if there were none of these activities in the Permit Area during this reporting year.* (Part 2.4.3.5)
53.	YES ☒ NO ☐	Are all maintenance requirements assigned/entered into the electronic tracking system for stormwater treatment and flow control BMPs/facilities? (Part 2.4.3.5)
54.	YES ☒ NO ☐	Do you keep adequate records to document that all the requirements of Part 2.4.3 of the Permit have been fully implemented? (Part 2.4.3.6)
55.	YES ☒ NO ☐	Were at least 80% of scheduled inspections completed during this reporting year? (Part 2.4.3.6)
56.	YES ☒ NO ☐	Have you established and implemented an internal tracking system to respond to issues of non-compliance? (Part 2.4.3.7)
57.	Narrative	*Annual Reporting Year 1: In the Comments section, please describe the Early Action Projects (EAPs) you plan to implement during this permit term. Please also provide a summary of all EAP planning and implementation actions taken to date.* (Part 2.4.4)
58.	Narrative	*Annual Reporting Year 2-5: In the Comments section, please provide any updates to your Early Action Projects (EAPs) plan. Please also provide a summary of all EAP planning and implementation actions taken in this reporting year.* (Part 2.4.4)
59.	YES ☐ NO ☐ NA ☒	*Annual Reporting Year 4:* Have you submitted a written Stormwater Infrastructure Investment Plan to EPA that documents future investments and upgrades in Naval Base Kitsap's stormwater infrastructure designed to improve MS4 discharge quality, AND that meets all of the requirements of Part 2.4.4? (Part 2.4.4)
60.	Narrative	*In the Comments section, please describe any training provided during this reporting period, including new employee training and follow-up training*. (Part 2.4.5)
61.	Narrative	*In the Comments section, please include a general summary any corrective actions taken at construction sites, number of site plans reviewed, site inspections, and one or more example of follow-up actions.* (Part 2.4.6)

New Development, Redevelopment, and Construction Site Runoff Control Comments:

44. Please refer to #18 above for details.

47. Please refer to #18 above for details.

48-49. See attached Inspection Tracker (Attachment 7).See #61 below.

50. Due to the limited size of construction projects, it is practical and standard practice to review all permanent stormwater treatment and flow control BMPs/facilities and catch basins in new developments during recurring inspections.

51. No construction projects reached completion during the first permit year.

52. Please refer to #18 above for details.

54-55. See attached Inspection Tracker (Attachment 7).

57. Please see attached Early Actions Project Plan (Attachment 8), and MS4 Early Action Projects Sampling Results (Attachment 9).

60. In March 2021, training was provided to facility project planners, designers, and construction managers during a regional “Construction Day." Approximately 25 personnel attended the training in person and an additional 50 personnel were provided the presentation for review after the training day was completed. The training topics presented included stormwater awareness, introduction to the MS4 permit, the SWMP, MS4 permit requirements, the Stormwater Management Manual for Western Washington, a refresher information about the Construction General Permit, and construction BMPs. Stormwater quality managers also provided on-the-job training to construction managers during site inspections.

61. During the first year of the MS4 permit, three site plans were reviewed by the environmental staff and 20 formal site inspections were conducted. Maximum coordination with NBK project managers and contractor site managers occurred before and during initial inspections. Project construction sites were also reviewed during required quarterly MSGP site inspections.

Most corrective actions identified during inspections were minor and included uncovered soil piles, cleanup of small amounts of spilled concrete washout and sawdust, installing catch basin filters, project tracking of dirt/mud into the street, and dirt on top of a plywood sheet covering installed stormwater structures. The only significant finding was observed erosion at multiple locations, following a January 2022 rainstorm on a steeply sloped construction site.

Follow-up actions for the observed erosion included NBK issuing a formal noncompliance notice to the construction contractor. The notice was followed up with a site walk with the prime contractor to discuss the issue pointing out deficiencies with the BMPs. NBK followed that up with another walk with both the prime and the subcontractor. The subcontractor began work updating the silt fence along the hillside and installed additional wattles at the outfalls and along the roadway. This was effective in controlling the runoff along the hillside. They also brought in additional bales of hay and spread them along the excavated areas. The prime and subcontractor plan to repair the hillside sloping and drain issues as the weather conditions permit.

Also see #23 for another example of corrective action.

Pollution Prevention and Good Housekeeping for Municipal Operations and Maintenance (Part 2.5)

If you answer "NO" to any of these questions, please explain in the Comments section.

62.	YES ☒ NO ☐	Have you established maintenance standards that are protective of facility function for all permanent stormwater facilities used for onsite management, flow control and treatment? (Part 2.5.1.1)
63.	YES ☐ NO ☒	Were all required maintenance activities, as relevant, undertaken per the schedules in Part 2.5.1.2? (Part 2.5.1.2)
64.	YES ☒ NO ☐	Does your operation and maintenance program include an enforceable mechanism that clearly identifies the party/parties responsible for maintenance? (Part 2.5.1.3)
65.	YES ☐ NO ☒	During this reporting year have you conducted inspections of all stormwater treatment and flow control BMPs/facilities that discharge to the MS4 at least annually or per an alternative schedule as established in the SWMP based on maintenance records or other documented information? (Part 2.5.2)
66.	Narrative	*In the Comments section, please specify the number of inspections of permanent stormwater facilities conducted pursuant to Parts 2.5.2. Please also indicate what percentage of the overall number of permanent stormwater facilities these numbers represent.* (Part 2.5.2)
67.	YES ☒ NO ☐	During this reporting year, have you conducted spot checks of all permanent stormwater facilities, per the requirements of Part 2.5.3 after all major storm events? (Part 2.5.3)
68.	Narrative	*In the Comments section, please specify the number of catch basins and inlets that were inspected during this reporting year. Please also indicate what percentage of the overall number of catch basins and inlets, this represents.* (Part 2.5.4)
69.	Narrative	*In the Comments section, please specify the number of catch basins cleaned during this reporting year.* (Part 2.5.4)
70.	YES ☒ NO ☐	During this reporting year, did you undertake and complete all the necessary maintenance, as required by Part 2.5.6 of the Permit, and as described in the SWMP document? (Part 2.5.6) *Please briefly describe in the Comments section.*
71.	Narrative	*In the Comments section, please briefly describe the animal waste management activities at Naval Base Kitsap-Keyport and Naval Base Kitsap-Bangor, during this reporting year.* (Part 2.5.7)
72.	Narrative	*In the Comments section, please describe any training provided during this reporting period, including new employee training and follow-up training*. (Part 2.5.8)
73.	YES ☐ NO ☐ NA ☒	Have you developed and implemented SWPPPs for all heavy equipment maintenance and storage yards and all material storage facilities within the MS4 area that are not already regulated under the MSGP? *Only choose NA if there were*

		none of these facilities in the Permit Area OR if this is the Annual Report for Year 1. (Part 2.5.9)
74.	YES ☐ NO ☒	During this reporting year, have you kept records of all inspections, findings of inspections, follow up actions to correct problems, and all maintenance? (Part 2.5.10)

Pollution Prevention and Good Housekeeping for Municipal Operations and Maintenance Comments:

62. Maintenance standards developed and adopted under the first year of the MS4 permit were provided to the contractor, along with employee training, on 29 Nov 2021.

63. NBK is working with its maintenance contractors to implement the maintenance standards developed and adopted under the first year of the MS4 permit. The contractors' maintenance programs have been assessed, and gaps within the programs have been identified and brought to contract management for resolution. Expectations for improvement in contractor maintenance execution and reporting have been established and are expected to continue in 2022.

64. See #18 above for details.

65. A project is currently in process to identify identify and map all stormwater facilities used for flow control and treatment at Navy facilities within the Northwest Region. Stormwater structure maintenance at NBK is performed by facility maintenance contractors. The contractors' maintenance programs have been assessed, and gaps within the program have been identified and brought to contract management for resolution. Maintenance standards for flow control and treatment facilities have been delivered to the contractors and are in the process of being implemented within existing maintenance contracts.

66. A project is currently in process to identify identify and map all stormwater facilities at Navy facilities within the Northwest Region. To date, the stormwater infrastructure audit has identified 29 bioswales, 11 stormwater vaults, 25 detention/retention ponds, 25 pump stations, 21 Filterra® bioretention systems, and 27 media filter cartridge vaults for recurring inspection and maintenance. Stormwater structure maintenance at NBK is performed by facility maintenance contractors. The contractors' maintenance programs have been assessed, and gaps within the program have been identified and brought to contract management for resolution. Maintenance standards for stormwater control structures have been delivered to the contractors and are in the process of being implemented within existing maintenance contracts.

67. No major storm event as defined in part 2.5.3 occurred during the first permit year.

68. NBK has an estimated 3252 stormwater catch basins located at properties covered under the permit, of which 747 (23%) were inspected in the second half of calendar year 2021.

69. Of the 747 catch basins inspected during the second half of calendar year 2021, 54 of those were cleaned.

70. All maintenance required by part 2.5.6 was conducted during the first permit year. The maintenance activities listed in this part are divided between two maintenance service contractors. The contracts define performance standards and provide detailed requirements for execution. Environmental compliance requirements for maintenance activities are being continually reviewed and updated as needed.

71. A survey of pet waste management needs at recreation areas and housing common areas was performed. NBK housing areas have 26 pet waste stations for use by residents located at properties covered under the permit. This includes two new stations installed at Keyport in Oct 2021. During the first permit year, approximately 14,400 bags were distributed to these stations. Six additional stations have been procured, to be placed in recreational areas, which are expected to be installed in 2022.

Please refer to answers provided to #40, #60 and #62 above for complete training information for personnel regarding pet waste management.

74. See answer to #63 above.

Part III. Monitoring, Recordkeeping and Reporting Requirements (Part 3)
If you answer "NO" to any of these questions, please explain in the Comments section.

75.	Narrative	*In the Comments section, please provide an evaluation of your compliance with the Permit conditions and progress towards achieving the control measures, during this reporting year.* (Part 3.1)
76.	☐ Option 1 ☒ Option 2	For Annual Reporting Year 1: Did you select monitoring Option 1 (Monitoring/Assessment Plan) or monitoring Option 2 (participation in the Stormwater Action Monitoring Program)? *For all reporting years: If you selected Option 1, please answer questions 77, 78 and 79. If you selected Option 2, please answer question 80.*
77.		*In the Comments section, please summarize the results of all monitoring and evaluation undertaken during this reporting year. Discuss results of all types of assessments per the monitoring plan approved by EPA pursuant to Parts 3.3.1 through 3.3.10 of the Permit. Provide your interpretation of these data and how you are using them to inform your stormwater management program.* (Part 3.3)
78.	YES ☐ NO ☐	During this reporting year, was all sample collection, preservation and analysis conducted according to test procedures approved under 40 CFR Part 136, or another method approved by EPA? (Part 3.3.4)
79.	YES ☐ NO ☐	During this reporting year, have you complied with all elements of your Quality Assurance Program Plan (QAPP) developed pursuant to the requirements of part 3.3.9 of the Permit? (Part 3.3.9)
80.	Narrative	*In the Comments section, please summarize your activities as a participant with the Stormwater Action Monitoring Program.*
81.	YES ☒ NO ☐	Are you complying with the record-keeping requirements of Part 3.6 of the Permit? (Part 3.6)
82.	YES ☒ NO ☐	During this reporting year have you ensured that an updated SWMP and all SWMP records are available to the public? (Part 3.7.2.2) *In the Comments section please discuss what records are available on your website, any requests you have received for records and your responses.*
83.	YES ☐ NO ☒	During this reporting year, have any boundary changes to your facilities resulted in either an increase or a decrease in the Permit Area? *If yes, please describe in the Comments section.* (Part 3.7.2.2.4)
84.	Narrative	*In the Comments section please provide an annotated list of any attachments to this Annual Report.* (Part 3.7.2.2.1)
85.	YES ☒ NO ☐	Are all monitoring data collected during this reporting year, as applicable, attached to this Annual Report? (Part 3.7.3)

Monitoring, Recordkeeping and Reporting Comments:

75. Minimum Control Measure (MCM) #1 – Education and Outreach

NBK is fully compliant with education and outreach requirements in the MS4 permit. Implementation efforts and accomplishments during the first permit year include:

- Production and distribution of flyers, posters and magnets containing information for reporting spills and illicit discharges
- Updated environmental awareness training plan for all installation personnel to include BMPs to prevent spills and illicit discharges
- Implemented BMP video training for the installation grounds maintenance contractor
- Provided virtual training to housing management and maintenance staff
- Distributed pamphlets on the environmental impact of pet waste to housing residents
- Emphasized installation policy against vehicle maintenance being performed in parking lots via a graphical magnet distributed to all unaccompanied housing residents
- Briefed housing residents on stormwater pollution control topics in a town hall meeting
- Delivered training on stormwater threats to southern resident killer whales to target audiences

MCM #2 – Public Involvement and Participation

NBK is fully compliant with public involvement and participation requirements in the MS4 permit. Implementation efforts and accomplishments during the first permit year include:

- Internal meetings with key managers and staff integral to permit implementation
- Coordination across Navy installations throughout the region
- Continued engagement with Native American tribes regarding Environmental issues
- Participation in the Washington Dept. of Ecology's Stormwater Action Monitoring Program
- Development of volunteer activities designed to actively engage residents and/or employees to better understand stormwater pollution

MCM #3 – Illicit Discharge Detection and Elimination

NBK is implementing its IDDE program to be fully compliant with the requirements of the MS4 permit. An installation instruction implementing clean water act requirements has been developed. Stakeholders have been engaged to ensure adoption of clean water act pollution control requirements. The SWMP required by the MS4 permit will be submitted to EPA simultaneously with this first annual report. The SWMP details practices and procedures, including allowable discharges.

Implementation efforts and accomplishments during the first permit year include:

- A contract to identify all stormwater structures and update all stormwater maps across the installation.
- Training target audiences on BMPs to prevent illicit discharges
- Continuing facility water conservation programs to minimize discharges from lawn watering and irrigation
- Training to prevent discharges from street and sidewalk wash water and routine external building wash down
- Development of procedures to minimize pollution due to discharges from utility vaults and secondary containments

- Implementation of a dry weather screening program to identify illicit discharges, particularly targeting fecal coliform in discharges leading to Liberty Bay and Clear Creek. Implementation of the dry weather screening program is several years ahead of the permit-required implementation schedule
- Procedures for evaluating discharges, investigating potentially illicit discharges, and implementing response and corrective actions to identfied illicit discharges
- Staff training beyond permit requirements for awareness in identifying and reporting illicit discharges

MCM #4 – New Development, Redevelopment, and Construction Site Runoff Control and MCM #5 – Post-Construction Site Runoff Control

NBK is implementing its construction/post-construction site runoff program to be fully compliant with the requirements of the MS4 permit. An installation instruction implementing clean water act requirements has been developed. Stakeholders have been engaged to ensure adoption of clean water act pollution control requirements. The SWMP will be submitted to EPA simultaneously with this annual report. The SWMP details practices and procedures, including runoff control.

Implementation efforts and accomplishments during the first permit year include:

- Training for project designers and construction management personnel
- Implementation and completion of required site plan reviews and construction inspections
- Implementation and completion of corrective actions addressing inspection findings
- Completion of an EAP Plan to identify and prioritize projects to be completed during this permit term
- Detailed stormwater sampling and analysis to identify any contaminants of concern for priority action

MCM #6 – Pollution Prevention and Good Housekeeping for Municipal Operations and Maintenance

NBK is implementing its operations and maintenance program needed to be compliant with the requirements of the MS4 permit. An installation instruction implementing clean water act requirements has been developed. Stakeholders have been engaged to ensure adoption of clean water act pollution control requirements. The SWMP will be submitted to EPA with the annual report. The SWMP details practices and procedures, including operations and maintenance. NBK is addressing stormwater infrastructure maintenance completion and tracking with the goal of establishing compliance with requirements.

Implementation efforts and accomplishments during the first permit year include:

- Assessment of existing contract maintenance and reporting requirements and identification of potential gaps
- Inspection of catch basins in compliance with requirements
- Implementation of an audit to identify all stormwater structures requiring inspections
- Development of maintenance standards for stormwater structures
- Training for stormwater personnel on maintenance standards
- Ongoing development of stormwater maintenance tracking and reporting
- Pet waste assessments in housing and recreation areas
- Installation of additional pet waste stations in housing
- Procurement of additional pet waste stations for recreation areas.
- Education and outreach to residents on pet waste environmental impact

77. Please refer to the attached Dry Weather Survey Summary and Dry Weather Analytical Summary (Attachments 5 and 6), Early Actions Project Plan, and MS4 Early Action Projects Sampling Results (Attachments 8 and 9).

80. Through negotiations with the Washington Dept. of Ecology Stormwater Action Monitoring (SAM) Network, the Navy is considered an active participant through annual payment. The regional MS4 manager participates in SAM Stormwater Work Group meetings, and while not currently voting on project proposals, the ability to in the future is available. The Navy's participation in SAM is outlined in the cover letter (see Attachment 10) provided by the Washington Dept. of Ecology.

82. The SWMP will be added to the public web site no later than 31 Mar 2022 in accordance with MS4 permit requirements.

84. Attachment 1: Stormwater Spill Response Infographic
Attachment 2: No Vehicle Maintenance Magnet
Attachment 3: Pet Waste Pamphlet
Attachment 4: NBK Water Conservation Progress
Attachment 5: Dry Weather Survey Summary
Attachment 6: Dry Weather Analytical Summary
Attachment 7: Inspection Tracker
Attachment 8: Early Actions Project Plan
Attachment 9: MS4 Early Action Projects Sampling Results
Attachment 10: Washington Dept. of Ecology letter, RE: Navy on joining Stormwater Action Monitoring Program, 15 June 2021

Part IV. Required Response to Exceedances of Water Quality Standards (Part 4)

86.	YES ☐ NO ☒	During this reporting year were any exceedances of water quality standards identified, per the terms of Part 4 of the Permit? (Part 4)
87.	Narrative	*If yes, please describe in the Comments section all measures that were taken to mitigate the water quality standards exceedance, including notifications, adaptive management measures undertaken, schedules for implementation, and a status of current conditions. Include details per the provisions in Part 4 of the Permit.*

Required Reponses to Violations of Water Quality Standards Comments: