

Response to Comments

Naval Magazine Indian Island
NPDES Permit Number: WA0021997
June 21, 2023

On February 24, 2022, the U.S. Environmental Protection Agency Region 10 (EPA) issued a public notice for the proposed reissuance of the Naval Magazine Indian Island (NMII) Wastewater Treatment Plant (WWTP) draft National Pollutant Discharge Elimination System (NPDES) Permit No. WA0021997. The public comment period closed on April 25, 2022.

During the public comment period, EPA received comments from:

- U.S. Department of the Navy (Navy)

Additionally, during Tribal coordination, the Port Gamble S’Klallam Tribe forwarded a comment letter to EPA that was sent to the Washington Department of Ecology. The letter included comments on the Clean Water Act Section 401 certification and the permit conditions. The Tribe also raised two other concerns during tribal coordination upon review of the proposed final permit.¹

This document presents the comments received from the Navy and the Tribe and provides corresponding responses to those comments. It also describes additional changes to the permit since the public comment period and the rationale for the changes.

The following revisions were made to the permit:

- The Nitrogen Optimization Report deadline was extended from 18 months to 5 years from the effective date of the permit (Parts II.B.1 and III.A.1).
- The Nitrogen Optimization Plan initial selection deadline was changed from March 31, 2022 to 6 months from the effective date of the permit and instructions for submitting the initial selection were added (Part II.B.1.a.ii).
- The deadline for compliance with the total inorganic nitrogen (TIN) limit of 3 mg/L was extended from 5 years to 10 years from the effective date of the permit and the implementation schedule in Table 5 was updated (Part II.E).
- The deadline for Discharge Monitoring Report (DMR) submission was changed from the 20th of the following month to the 28th of the following month (Part III.D.1).
- The deadline for Quality Assurance Plan (QAP) development was changed from 90 days to 12 months from the effective date of the permit (Part II.D).
- The Operation and Maintenance (O&M) Plan deadline was extended from 180 days to 12 months from the effective date of the permit (Part II.C).
- Language describing surface water monitoring requirements was changed from “monitoring station” to “sampling location,” for clarity (Part I.C.1).

¹ See Memo to File – Meeting with Port Gamble S’Klallam Tribe. March 6, 2023.

- A specific lat-long location for surface water monitoring was added to the permit (Part I.C.1).
- Table 2 was revised to clarify the number of samples required per sampling event.
- The frequency for receiving water observation was clarified to be once per quarter (Part I.B.2.b).
- The surface water monitoring condition stating that samples for metals, pH, dissolved organic carbon, conductivity and hardness must be collected on the same day was removed (Part I.C).
- The footnote in Table 1 describing the calculation for average (now “estimated”) monthly TIN load was revised (now footnote 13).
- The Industrial Waste Management requirement to develop a “legally enforceable code” was replaced with “enforceable Directive or Instruction, signed by the Installation Commanding Officer,” and the submission instructions were updated (Part II.G.7). Part II.G was updated in several other ways to remove language specific to publicly owned treatment works (POTWs) and make it appropriate for federally owned treatment works (FOTWs).
- Parts 1.B.3 and 1.B.4 that refer to continuous temperature monitoring requirements were removed.
- Monitoring for fecal coliform and enterococci bacteria was reduced from 5 times per month to 3 times per month.
- Footnotes 1 and 10 in Table 1 were added to clarify how to handle sampling the facility’s intermittent discharge.
- Footnote 8 in Table 1 was updated to refer to fecal coliform as well as enterococci bacteria and to require 3 samples per month instead of 5.
- Superscripts/footnotes in Table 1 were revised to be only numbers, and errors in what footnote the superscript references were corrected for what are now superscripts 2, 6, 7, 16, and 17.
- Footnote 2 in Table 1, regarding 24-hour composite samples, was changed to reference the full definition in the Definitions section of the Permit.
- The reference to IDEQ was removed in Part I.B.4.
- In the Outfall Evaluation Report instructions (Part III.B.3) the reference to Part C.4 was removed
- Per- and Polyfluoroalkyl Substances (PFAS) monitoring was added to Table 1, along with footnotes 18 and 19.
- A description of the requirements for PFAS monitoring was added in Part I.B.8 and Table 2.
- Submission requirements for the Outfall Evaluation Report were moved from Part III to Part II.A.
- Reporting requirements for the Nitrogen Optimization Report were moved from Part III to Part II.B.
- Civil and administrative penalties (Parts IV.B.1 and 2) were revised to reflect updates to CWA § 309(d).

- The Port Gamble S’Klallam Tribe was added as a recipient of noncompliance reports (Part III.G.4).

Permit Comments (Navy)

Comment 1:

The NMII WWTP is a small, low-volume, infrequently operated wastewater treatment plant, as can be seen in Table 1 and Table 2 below.

Table 1

NMII Discharge Volumes, 2017 - 2021		
Year	volume of effluent discharged in 1 year (million gallons)	Average volume discharged per day, when plant is in operation (mgd)
2017	2.09	0.0138
2018	2.5	0.0145
2019	0.88	0.0093
2020	2.15	0.0187
2021	1.23	0.0127

Table 2

NMII <u>Operational</u> days, 2017 - 2021	
Year	Days WWTP operational
2017	153 (41.92% of year)
2018	176 (48.22% of year)
2019	95 (26.03% of year)
2020	115 (31.42% of year)
2021	97 (26.58% of year)

The Washington State Department of Ecology (Ecology) Puget Sound Nutrient General Permit (PSNGP), issued December 1, 2021 defines a “Small Loader” as: “Small loader means a wastewater treatment plant discharging less than 100 lbs/day TIN. Cumulatively, small loaders represent <1% of the domestic point source TIN [total inorganic nitrogen] load.”

There is currently limited TIN sampling data available for the effluent of the NMII WWTP. An informational sample was taken on 9/21/2021 which indicated a result of 20.79 mg/L, TIN in the effluent. Below, for comparison, are the daily and yearly calculated TIN values, assuming the 9/21/2021, 20.79 mg/L TIN effluent reading is representative:

Table 3 - Daily TIN (lbs)

Average Daily TIN (lbs/day), Small POTW (from PSNGP)	19.11 lbs/day
Est Daily TIN (lbs/day), NMII WWTP at Design Maximum Flowrate	7.46 lbs/day
Est. Daily TIN (lbs/day), NMII WWTP Maximum Observed Flowrate	3.20 lbs/day
Est. Daily TIN (lbs/day), NMII WWTP Actual	0.81 lbs/day

Table 4 – Yearly TIN (lbs)

Average Max Annual TIN, Small POTW	6975.15 lbs
Est. Max Annual TIN (lbs), NMII WWTP Maximum Design Flowrate	2721.33 lbs
Est. Max Annual TIN (lbs), NMII WWTP Maximum Observed Flowrate	1169.29 lbs
Est. Annual TIN (lbs), NMII WWTP Actual	296.06 lbs

As shown in Table 3 and 4, if currently available data is representative, then the NMII WWTP operations should result in the plant being a very small loader of TIN under its worst operating conditions, even relative to other “small loaders”. Nevertheless, EPA is proposing to apply more stringent compliance timelines and effluent limitations than those for small loaders contained in the PSNGP. As enacted, the PSNGP does not require small loaders to comply with a 3 mg/L (1.1 lbs/day) effluent limit as currently contained in the draft permit for NMII. Furthermore, small loaders are only required to submit one final Nitrogen Optimization Plan and Report by the end of the 5-year permit cycle, however EPA is requiring NMII to submit a Nitrogen Optimization Plan and Report within 18 months of enacting the permit. As a federal facility with unique budgetary and planning requirements, NMII should be afforded at least an equal amount of time to prepare and submit the report and should not be subject to stricter effluent limitations than those imposed by Ecology in the PSNGP. The Navy requests that EPA change the required submission date of the Nitrogen Optimization Plan and Report to match the requirements for PSNGP small loaders, resulting in a report due date at the end of the first permit cycle, 5 years from when the permit becomes effective. Additionally, the Navy requests that the final effluent limitations of 3 mg/L (1.1 lbs/day) be removed and NMII remain in a monitor and report only status to match the PSNGP requirements for small loaders.

Response:

EPA concurs that the NMII WWTP meets the definition of a small loader as defined in Ecology’s PSNGP. However, Ecology is not the permitting authority for federal facilities in Washington and, unlike the facilities covered under Ecology’s PSNGP, the NMII WWTP is not a POTW, that is funded, in part, through ratepayers. As a FOTW, the NMII WWTP is funded by the federal government, thus, upgrades will not result in increased

costs for customers. As the permitting authority for federal facilities in Washington, EPA is not required to impose the same requirements on the NMII WWTP that Ecology has imposed on POTWs that it considered to be small loaders in the PSNGP. This is not a general permit, but instead an individual permit. Moreover, EPA is not establishing water quality-based effluent limits for nitrogen in the permit. Instead, as explained in the Fact Sheet, EPA has established a technology-based effluent limit of 3 mg/L (1.1 lbs/day) for nitrogen pursuant to 40 CFR § 125.3. In establishing this limit based on best professional judgment (BPJ), EPA considered the following factors:

- (i) The age of equipment and facilities involved;
- (ii) The process employed;
- (iii) The engineering aspects of various types of control techniques;
- (iv) Process changes;
- (v) The cost of achieving such effluent reduction; and
- (vi) Non-water quality environmental impact (including energy requirements).

For a discussion of EPA's analysis regarding the factors, see page 19-23 of the Fact Sheet.

Recognizing the unique budgetary and planning requirements, EPA has considered the Navy's request to extend the date for the Nitrogen Optimization Plan from 18 months from the effective date of the permit to 5 years from the effective date of the permit. EPA concurs and the permit has been updated as follows:

- Permit page 2, Schedule of Submissions, Nitrogen Optimization Plan now reads "5 years from the effective date of the permit;" and,
- Permit Part II.B.1, Nitrogen Optimization Plan and Report now reads "This report must be submitted by 5 years from the effective date of this permit;"
- Permit, Part II.B.1.a.ii, Initial Selection now reads "By 6 months from the permit effective date identify the optimization strategy selected for implementation."

No other changes were made to the permit as a result of this comment.

Comment 2:

The NMII WWTP outfall is located within Port Townsend Bay which is subject to strong tidal mixing and exceptional water quality. Within Section II.E of the Draft NPDES Permit Fact Sheet, it is acknowledged that "Ecology has not documented any water quality impairments in the receiving water in the vicinity of the outfall". Receiving water quality data in Table 3 of Draft Fact Sheet does not indicate any current dissolved oxygen impairments in the receiving water in the vicinity of the outfall. Puget Sound Dissolved Oxygen Model (Nutrient Load Summary for 1999-2008, WDOE Publication No. 11-03-057), on page 61, states that net oceanic dissolved inorganic nitrogen (DIN) load into Puget Sound south of Deception Pass contributes

68% of the total DIN, which leaves 32% of the total DIN load into Puget Sound from local rivers and WWTPs. Of this 32%, WWTPs contribute 44% annually (page 59 of Puget Sound Dissolved Oxygen Model). Therefore, the current dissolved inorganic nitrogen load from WWTPs into Puget Sound is only about 14%. Additionally, EPA has not presented a scientific argument to demonstrate that any water quality improvements would result from subjecting the NMII WWTP to the proposed nitrogen reduction requirements. Therefore, there is no data to indicate that the small TIN contribution from the NMII WWTP contributes a risk to the water quality in the receiving waters. Based on the minimal contribution of TIN by the NMII WWTP, and the lack of data indicating that these minimal amounts will produce any water quality issues, the Navy requests the nutrient reduction requirements be removed.

Response:

As explained in Response to Permit Comment #1, the nitrogen effluent limits are technology-based effluent limits based upon BPJ. Demonstration of water quality improvements is not a factor in developing technology-based limits. Instead, the limits are based on what is achievable by the applicant. Also, as a clarification regarding the commentor's request that EPA demonstrate any improvement to water quality, EPA notes that water quality-based effluent limits for a pollutant are required when the permitting authority determines that the discharge has reasonable potential to cause or contribute to a water quality excursion above the water quality criteria. The need for effluent limits is not triggered by a demonstration of water quality improvement. No changes were made as a result of this comment.

Comment 3:

Based on the age of the WWTP, current treatment processes, and supported by the 9/21/2021 informational effluent TIN sampling results, it is unlikely that the NMII WWTP can comply with the TIN effluent standard of 3.0 mg/L established in the draft permit without significant capital upgrades. Given the location of the outfall, and the water quality of the receiving waters, it does not appear that there would be a significant environmental benefit to regulating TIN discharges of the NMII WWTP, sufficient to justify the significant capital investment that would be required to install nitrogen treatment processes and bring the plant into compliance with the 3.0 mg/L TIN effluent standard established in the draft permit.

Response:

As explained in Response to Permit Comment #1 and the Fact Sheet, pages 19-23, EPA considered all the factors set forth in 40 CFR § 125.3(c) as well as operational and compliance records for the facility. Records indicate that the NMII WWTP is a well maintained and operated facility capable of secondary wastewater treatment with a high degree of removal of conventional pollutants. The facility has been periodically updated to improve system performance and protection of the environment surrounding the discharge. This makes the facility an ideal candidate for further upgrades and the addition of nitrogen reduction treatment within the time period specified in the permit implementation schedule. See also Response to Permit Comment #2 regarding water quality improvements. No changes were made to the permit as a result of this comment.

Comment 4:

Navy recommends that PSNGP derived nutrient requirements be removed from the draft permit. If PSNGP derived requirements are not removed, recommend that PSNGP requirements be “monitor only”.

If no dissolved oxygen impairments are documented within the immediate receiving waters, and if the monitoring results demonstrate minimal impact to receiving waters from NMII WWTP TIN, recommend that the NMII WWTP be given the opportunity to apply to remain in “report only” status for TIN.

Response:

As explained in the Fact Sheet, the permit contains narrative water quality-based conditions related to nutrients because there is reasonable potential to exceed the numeric dissolved oxygen criteria (see page 18 of the Fact Sheet). Specifically, Ecology has identified nitrogen as the primary human source contributor to reduced dissolved oxygen levels in Puget Sound. Further, Ecology has concluded that all domestic WWTPs that discharge nitrogen to Puget Sound have reasonable potential to exceed the numeric DO criteria. The NMII WWTP treats domestic wastewater; therefore, there is reasonable potential to exceed the DO criteria, and the permit must contain effluent limitations to address nitrogen. To ensure that WWTPs that discharge to Puget Sound have the same or similar requirements, EPA has included narrative nutrient requirements that are similar to the PSNGP. The PSNGP-derived requirements in the permit are already “monitor only” – they require the permittee to monitor for several parameters and then report them to EPA.

In addition to having narrative water quality based effluent limits for nutrients that are similar to the PSNGP, the NMII permit has a numeric TIN effluent limit that is a technology-based limit. See Response to Permit Comment #1-3.

No changes were made to the permit as a result of this comment.

Comment 5:

The timelines included in the draft permit for compliance with the Nitrogen Optimization Report and those contained in the BAT TIN compliance table (Table 4, Pg. 15) are not appropriate for federal treatment plants, which operate under different fiscal models.

As a FOTW owned by the Navy, Capital investment projects, as well as the plant’s operation and maintenance budget are funded as part of the Navy’s infrastructure budget, not by rates paid by users as many municipal POTWs are funded. Capital investment costs for the WWTP, as well as operation and maintenance costs, are subject to federal and Department of Defense acquisition rules, regulations, and administrative requirements, including but not limited to the Federal Acquisition Regulations (FAR). In making changes to capital infrastructure, or additional operation and maintenance necessary to comply with the requirements of the new permit, the Navy will be constrained to operate within federal and Navy budgetary planning and acquisition requirements and timelines.

As stated in the comments above, the timelines proposed for nutrient reduction and control requirements, as proposed in the draft permit, does not account for fiscal timeline constraints that FOTWs are subject to. Additionally, as demonstrated in the comments above, those requirements will likely result in limited control of nutrients and no demonstrable environmental benefit. In summary, recommend nutrient reduction and control requirements be removed from the permit. If not removed from the permit, then timelines must be adjusted consistent with a reasonable compliance schedule timeline for an FOTW and also allow for increased flexibility to account for the small, intermittent discharge of NMII (see Table 2).

Response:

In responding to this comment, EPA obtained additional detail from the Navy regarding their funding timeline to complete the nutrient report and system upgrades. The Navy specified that the earliest a study to select an upgrade project can be completed is in late 2024, and then submitted in the 2025 planning cycle, which allocates funding for 2030. The Navy assumes that the project will exceed the \$300k annual budget for utilities and facilities upgrades combined, meaning it will be funded as a special project or Military construction (subject to Congressional Approval) and subject to the Program Objective Memorandum (POM, DOD's 5-year spending plan). Accordingly, the earliest start date for construction would be in fiscal year 2030.²

Following this explanation, and additional information from the Navy regarding the timeline for completing an upgrade project, EPA agrees that additional time is needed and has revised the permit in the following ways:

- EPA extended the date for completion of the Nitrogen Optimization Report from 18 months from the effective date of the permit to 5 years from the effective date of the permit. (See Response to Permit Comment #1)
- EPA extended the deadline for meeting the BAT TIN effluent limits to 10 years. Permit Part II.E.1 now reads "The permittee must achieve compliance with the limitations of Permit Part I.B. by 10 years from permit effective date."
- Permit Table 4 lists an implementation schedule to achieve TIN BAT compliance within 10 years.

Since the permit will expire after five years, the implementation schedule will be carried over into the next permit issuance.

Comment 6:

Because nutrient removal technologies are still evolving and not widely practicable, as acknowledged by WADOE in the PSNGP Fact Sheet, applying the nutrient reduction requirements of the PSNGP to FOTWs in this draft permit is premature. WADOE's PSNGP Fact Sheet stated that "[t]he current body of knowledge regarding nutrient treatment technologies continues to evolve as researchers develop and study new microbial populations and advanced

² Email from Monika Glandorff, P.E., Naval Base Kitsap, Bangor

treatment processes.” “Ecology encourages creative approaches to reducing nutrient loads in Puget Sound and understands the Agency will need to support any permittee that elects to pursue innovative solutions that have not yet seen full-scale implementation in the state.” This does not appear to be a very cost-effective way to achieve any meaningful nutrient reduction and will result in patchwork implementation strategies, ultimately resulting in a longer timeframe to realize any positive results.

Response:

As addressed in Response to Comment #4, EPA has included narrative water quality based effluent limits that are the same or similar to the PSNGP issued by Ecology. In addition, the permit contains a numeric technology-based effluent limit for total inorganic nitrogen that was established pursuant to 40 CFR § 125.3. As stated in the Fact Sheet, in EPA’s Innovative Nutrient Removal Technologies: Case Studies of Intensified or Enhanced Treatment, three case studies were set forth showing facilities utilizing available treatment technology to reduce nitrogen in their respective discharges. This document is available as a free download here

<https://www.epa.gov/system/files/documents/2021-08/innovative-nutrient-removal-technologies-report-082721.pdf>. A nutrient limit is being established based on examples of BAT cited in those case studies for three treatment facilities: AlexRenew Advanced Resource Recovery Facility – Alexandria Virginia (AWRRF), South Durham Water Reclamation Facility – Durham, North Carolina (SDWRF), and Town of Hillsborough Wastewater Treatment Plant – Hillsborough, North Carolina (HWWTP) (EPA, 2021). Simpler methods for upgrading activated sludge facilities to achieve enhanced nutrient removal are also available, as described in EPA’s Case Studies on Implementing Low-Cost Modifications to Improve Nutrient Reduction at Wastewater Treatment Plants, available here: https://www.epa.gov/sites/default/files/2015-08/documents/case_studies_on_implementing_low-cost_modification_to_improve_potw_nutrient_reduction-combined_508_-_august.pdf.

There are nutrient removal technologies that are both practicable and available for the facility. As a result, the permit has not been changed as a result of this comment. See also Response to Comment #1 describing the difference between a FOTW and POTW.

Comment 7: Discharge Monitoring Report Submission Date

Monthly Discharge Monitoring Reports submission date should be changed to require submission on the 28th of the month. Because Naval Magazine Indian Island is a small facility, many of the laboratory analysis for monitoring will be conducted by offsite commercial analytical chemistry laboratories. In order to ensure enough time for commercial lab turnaround of samples conducted late in a monitoring month, as well as completion of the DMR, respectfully request that DMR’s be due on the 28th day of the following month vice the 20th day as listed in the draft permit.

Response:

EPA agrees with this comment and has changed the due date for DMRs to be the 28th day of the following month.

Comment 8: Quality Assurance Plan Submission Date

This is a low discharge volume, limited operation WWTP with a permit that hasn't been renewed since 1985. Due to the volume and significance of changes in the draft permit, more than 90 days from permit issuance is necessary and justified for development of a Quality Assurance Plan (QAP) to ensure compliance with the many significant changes proposed in the draft permit. NMII WWTP's current NPDES permit does not require a QAP, and the monitoring requirements in the proposed permit more than double the number of analytes to be monitored in Table 1 in addition to establishing Surface Water Monitoring Requirements at the outfall. Additionally, the QAP must include the Surface Water Monitoring Requirements and the nutrient reduction strategy selected, both of which will not be finalized within 90 days. One year from the issue date would be a minimum reasonable submission date for the QAP due to the significance and volume of new permit requirements and monitoring proposed in the draft permit.

Response:

EPA agrees with this comment and has changed the permit to make the QAP for the facility due 12 months from the permit effective date.

Comment 9: Operation and Maintenance (O&M) Plan Submission Date

This is a low discharge volume, limited operation WWTP with a permit that hasn't been renewed since 1985. Due to the volume and significance of changes in the draft permit, greater than 180 days from permit issuance is necessary for development of a revised O&M Plan for the new permit. A minimum of one year from the issue date would be a minimum reasonable submission date for the O&M Plan due to the significance and volume of new permit requirements and analysis from the existing permit.

Response:

EPA agrees with this comment and has changed the permit to make the O&M Plan for the facility due 12 months from the permit effective date.

Comment 10: Surface Water Monitoring Report

This is a new requirement for the facility not included in its current permit. NAVMAG Indian Island is a minor facility with no permanent residents and the WWTP is a very small plant with a design discharge volume of 0.043 mgd. The maximum daily discharge rate in the last 5 years was 0.0187 mgd, well below the design rate and permit limit. Discharges are infrequent and it is not unusual for the plant to have no discharge for an entire month (see Table 2 above), especially during the summer. The frequency and sampling requirements of the surface water monitoring will be hard to achieve given the low-volume discharges and periods of prolonged shutdown. Recommend the requirement to conduct surface water monitoring and to prepare a surface water monitoring report be removed from the permit.

If this requirement is not removed, please clarify I.C.1. - Monitoring stations. Please clarify how many stations are required and if they are permanent stations or mobile/temporary stations. The establishment of monitoring station(s) at the edge of the chronic mixing zone will be subject to review and approval to ensure compliance with military security requirements.

Response:

Surface water monitoring is necessary for EPA to assess reasonable potential for violating water quality-based standards during the next permit cycle. EPA has allowed 180 days from the effective date of the permit to begin surface water monitoring. EPA has retained the surface water monitoring in the permit.

The term “station” is meant to be synonymous to “sampling location.” The Navy should establish a consistent sampling location referenced by lat-long coordinates. The permit has been changed to replace “station” with “sampling location.” It has also been changed to include a specific lat-long location for sampling, as described in the Response to Permit Comment #11.

Comment 11: Surface Water Monitoring Report Start and Submission Date

If the requirement to conduct surface monitoring and submit a surface water monitoring report is not removed, then the Navy requests that the start of the monitoring and submission of reports be no sooner than three years after the permit effective date. This is a new requirement for this WWTP, which is not a significant discharger. The environmental review process, to include NEPA, potential permitting, and approval from Ecology for the location of the sampling station will take a significant period of time to establish. Furthermore, the Navy questions the rationale of having approval sought from Ecology and not EPA. EPA is the permitting authority in this case and should also be the approval authority.

In addition to regulatory requirements and approval of the location, it will take time to plan, schedule and secure the funding for the establishment of the monitoring station (see comments above). Based on these factors, three years from permit start date for this requirement to take effect is requested.

Response:

As explained in Response to Permit Comment #10, EPA is retaining the surface water monitoring requirements in the permit.

Three years to prepare for surface water monitoring is unnecessary. As explained in Response to Permit Comment #10, the Navy does not have to install sampling stations. Instead, the Navy can collect water samples from a vessel on the water, which is within current capabilities of the Navy or a qualified contractor. EPA agrees with the comment that approval should not be sought from Ecology and has removed this requirement from the permit. EPA has amended Permit Part I.C to include a latitude/longitude location for surface water monitoring, with the option for the permittee to suggest a different location at the edge of the chronic mixing zone if preferred.

Comment 12: Surface Water Monitoring Requirements

The monitoring requirements include monitoring for dissolved oxygen (DO) 3/quarter, which is more frequent than monitoring for the other required parameters. The Navy requests that EPA only require 1/quarter monitoring of DO, to align the DO sampling frequency with those of the other parameters. Additionally, the requirement to sample for metals, Dissolved Organic Carbon (DOC), conductivity and hardness should be removed, based upon the fact that there will be a negligible negative effect on overall surface water quality from the small volume of discharge from the NMII WWTP.

If the requirement to monitor DO 3/quarter is not changed, then clarify whether 3 separate and distinct monitoring events are to take place (on different dates, for a total of 9 distinct samples), or if 3/quarter requires only one monitoring event, during which 3 distinct samples are collected (upper, middle, bottom third of water column).

Response:

Surface water monitoring, including for DO, is required to assess the impact of the discharge during the next permit cycle. The footnote to Table 2 in Part I.C of the Permit explains, “Quarterly DO samples must be taken in upper third, middle third, and lower third of water column for a total of three individual samples;...” Thus, the requirement is 3 distinct DO samples (each at a different depth) per quarter, not 9 distinct samples per quarter. The surface water monitoring requirements do not specify any sampling for metals, dissolved organic carbon, conductivity, or hardness. To provide additional clarification, EPA revised Table 2 to have separate columns for the number of sampling events and the number of samples.

Comment 13: Permit Part I.B.2

Permit Part I.B.2 states “The permittee must observe the surface of the receiving water in the vicinity of where the effluent enters the surface water. The permittee must maintain a written log of the observation which includes the date, time, observer, and whether there is presence of floating, suspended or submerged matter. The log must be retained and made available to EPA upon request.”

The outfall is 275 feet offshore, in approximately 11.6 feet of water. This condition states it must be done and recorded but doesn’t provide a periodicity. If this requirement is maintained, additional clarity must be provided. Recommend 1/qtr consistent with proposed surface water monitoring.

Response:

EPA agrees with this comment and has changed Permit Part I.B.2 to specify that this monitoring requirement is to be met at a minimum frequency of once per quarter.

Comment 14: Permit Part I.C.9

Permit Part I.C.9 states “Samples for metals, pH, Dissolved Organic Carbon, conductivity and hardness must be collected on the same day.”

Recommend deletion of I.C.9, - pH is the only analyte of those listed proposed to be monitored.

Response:

EPA agrees with this comment and has changed the permit to remove Permit Part I.C.9.

Comment 15: Permit Part II.B. Nutrient Optimization Plan and Report

If the nutrient optimization plan and report requirements are not removed as requested in previous comments, Navy recommends that nutrient monitoring and reduction requirements be “monitor and report only”. Additionally, if there continue to be no dissolved oxygen impairments documented within the immediate receiving waters, and if the monitoring results demonstrate minimal impact to receiving waters from NMII WWTP TIN, recommend that the NMII WWTP be given the opportunity to apply to remain in “report only” status for TIN as part of the Nitrogen Minimization Plan submission, in Section III.A of the draft permit.

If the requirement remains, additional time will be needed to implement the Nitrogen Optimization Plan than what is currently provided in the proposed draft (see comments above). In summary, as stated previously, this is a low flow volume FOTW whose NPDES permit has not been renewed since 1985, despite renewal applications being submitted. There is currently limited nutrient output information available for the plant. It will require time to budget and hire a consultant and additional time to gather data and evaluate and choose a nutrient reduction strategy. Therefore, the following changes are requested:

II.B.1 - Recommend 36 months from permit issuance for the initial plan.

II.B.1.ii. - Recommend a single report 5 years from issuance of the permit, to be submitted with data from nutrient monitoring.

Response:

See Response to Permit Comment #1-6.

Comment 16: Permit Part II.B. Nitrogen Optimization Plan Additional Reporting

The additional calculations and reporting of TIN (Total Inorganic Nitrogen) required solely in support of the Nitrogen Optimization Plan should also be removed when the requirement to develop, implement and maintain a Nitrogen Optimization Plan is removed.

Response:

See Response to Permit Comment #1-6, 15. The permit is unchanged as a result of this comment.

Comment 17: Permit Part III.A. Nitrogen Minimization Report Submission

See earlier comments regarding PSNGP requirement applicability to the NMII WWTP. Recommend ONE report regarding Nitrogen Minimization and Control, required at the 5 year point from permit issuance.

Response:

See Response to Permit Comment #1-6, 15. The permit is unchanged as a result of this comment.

Comment 18: Revision to Footnote (i)

Current Footnotes (i) for calculating average monthly TIN load:
Monthly average TIN load (lbs as N)
$$= \left(\frac{\sum \text{Calculated TIN loads} \left(\frac{\text{lbs}}{\text{day as N}} \right)}{\text{number of samples} \times \text{number of days in the calendar month}} \right)$$
 Footnote should be revised to show:

Monthly average TIN load (lbs as N) = ((sum of calculated TIN loads (lbs/day as N))/number of samples) x number of days of flow in the calendar month

Response:

EPA agrees with this comment and has revised what was footnote (i) (now footnote (16)) in Table 1 consistent with the Navy’s suggested equation. EPA has also changed “average” monthly TIN load to “estimated” monthly TIN load to better represent the meaning of the calculation. To, clarify, when calculating the TIN load for a day from total ammonia and nitrate plus nitrite, the Navy should use the corresponding actual daily flow measurement for that day of sampling. What is now footnote (13) (formerly footnote (h)) in Table 1 of the permit is revised accordingly.

Comment 19: Task Timelines (Table 4) for TIN BAT

This table should be removed. Previous comments have addressed the relative value of the nutrient reduction requirements in relation to the NMII WWTP, as well as the budgetary process the Navy will be subject in order to bring the plant into compliance with such requirements. As such, Table 4 of the draft permit presents non-achievable timelines for a small FOTW, which is subject to federal budget cycles, constraints and planning requirements. Imposing additional administrative requirements in the form of additional intermediate step timelines and reports does not appear to add any value.

In summary, the Navy recommends deletion of draft permit Table 4 and that EPA require the submission of an actionable plan for Nitrogen Minimization only IF receiving water quality data and nutrient monitoring indicate that nutrient reductions from the WWTP are necessary to ensure protection of the receiving waters.

Response:

See Response to Permit Comments #1-6, 15. The permit is unchanged as a result of this comment.

Comment 20: Facility Planning Requirements

The Facility Planning requirements listed in the permit are meant to ensure POTW's adequately manage growth. They are not necessary for an FOTW servicing a small military installation which has significantly more constraints on and control over its long-term growth than a municipality would have. As such, the requirements listed in support of adequate capacity planning should be removed from the permit. As an FOTW servicing a military installation, planning for future changes and requirements is internally addressed as part of the Navy's long-term planning processes. Furthermore, planning for adequate capacity is solely the responsibility of the Navy and should not be a separate requirement listed in the NPDES permit. In addition to the reasons listed above, the intermittent and low discharge volumes from the NMII WWTP are well below the design flow rates, therefore, meeting the conditions necessary for triggering plan development is very low risk.

Response:

As the comment stated, the intermittent and low discharge volumes from the NMII WWTP are well below the design flow rates. If the NMII WWTP does not exceed flow or waste loads for any two months during a 12-month period, then the facility planning requirement would not be triggered and no further planning as far as capacity would be needed. The permit is unchanged as a result of this comment.

Comment 21: Industrial Waste Management Master List

The standard language in this section of the permit was developed assuming the WWTP is a POTW servicing a municipality and is primarily meant to protect the POTW and receiving waters from industrial users discharging into the system. It is less necessary for an FOTW serving a military installation where any industrial processes discharging into the system are under the cognizance of the owner of the FOTW (Navy) and in support of the owner's mission.

All industrial users onboard NAVMAG Indian Island were listed in the permit application. Given the mission and operations of the facility, there are only minimal and minor industrial users and processes present and any new process would be identified and evaluated for impact to the WWTP prior to authorization of discharge to the system. Recommend removal as an unnecessary administrative requirement. If this requirement is not removed, then eliminate the requirement to submit to EPA and instead require the list to be kept onsite and available on request.

Response:

While the NMII WWTP is a FOTW, there is still the possibility of industrial users introducing pollutants to the facility. Even if industrial dischargers are under the cognizance of the Navy, EPA needs to ensure that industrial users do not introduce pollutants to the WWTP that might cause water quality impacts or cause a bypass/upset at the facility. Pollutants that the facility is not prepared to handle could have impacts beyond the confines of the FOTW. The permit is unchanged as a result of this comment.

Comment 22: Emergency Response and Public Notification Plan

Naval Magazine Indian Island is a military installation owned and operated by the United States Navy. Naval Magazine Indian Island maintains an Emergency Operations Center and existing emergency response plans and SOPs that govern situations requiring public notification, communication, and coordination.

Requiring an additional stand-alone plan just for this permit is administratively redundant and not value added as it distracts from the existing established installation emergency management structure. Request this requirement be removed, or if not removed, NMII be allowed to meet the requirement by referencing and or updating existing installation emergency operations plans.

Response:

Part II.H of the permit requires the Navy to develop and implement an overflow emergency response and public notification plan for events such as a sanitary sewer overflow (SSO), bypass of the treatment facility, or upset to the treatment process. To the extent that the Navy has already developed plans that meet the requirements in the permit, the Navy can use those plans to fulfill Part I.H of the permit. The permit is unchanged as a result of this comment.

Comment 23: Permit Part II.G.6 & 7. Legally Enforceable Code

The requirement under Permit Part II.G.6 & 7 to develop a legally enforceable code is not applicable to a military installation. This was written for POTW's and meant to be applied through City and County Ordinances as applicable and not for military installations. Military installations do not have the ability to develop "legally enforceable codes" for submission to EPA and there is no means of meeting this requirement as written. However, the risk that industrial users represent to both the treatment plant and water quality is much less for an FOTW owned and operated by a military installation than it would be for a municipal POTW because all military installation activities are under the direct responsibility of the installation commanding officer (CO), who is also the responsible official for both the NMII WWTP and the NPDES permit. As the installation CO and responsible official for the permit, the CO has the direct means to ensure that policies and directives implemented to protect the FOTW and receiving waters are implemented and adequately enforced. The recommended equivalent to satisfy the intent of the requirement is through an installation level instruction or directive, signed by the Commanding Officer of the installation, which would establish policies and procedures at the installation that must be followed by all entities at the installation discharging to the sanitary sewer system.

Recommend alternate language.

"6. The Permittee must have or develop an enforceable Directive or Instruction, signed by the Installation Commanding Officer, to authorize and enforce facility discharge requirements.

7. The Instruction or Directive could be submitted in NetDMR (preferred) or to the addresses listed."

Response:

EPA agrees with the Navy that the federal pretreatment requirements under 40 CFR Part 403 do not apply to FOTWs but do apply to POTWs. However, EPA is applying BPJ to include provisions that protect the FOTW from pollutants that may enter the treatment works. EPA agrees with the Navy's request to replace "legally enforceable code" with "enforceable Directive or Instruction, signed by the Installation Commanding Officer" in Part II.G.6. In addition, EPA updated Part II.G.7 of the final permit to require the Navy to submit the information as an electronic attachment to an email.

EPA updated Part II.G in several other ways to remove language specific to POTWs. The word "municipal" to describe sludge was removed in Part II.G.1; Part II.G.3.c was modified and Parts II.G.3.d and e, which reference local standards and requirements, were removed; and, the reference to pretreatment standards was removed in Part II.G.5.a.iii.

Comment 24: Permit Part III.I. 24 Hour Notice of Noncompliance Reporting

Recommend revision of Permit Part III.I.2, to avoid unnecessary administrative churn due to overreporting of minor upsets and overflows that do not represent a risk to human health and the environment. As a military installation, access to NMII is limited to authorized personnel only. There are no full time residents on the facility. The current permit language is tailored towards POTWs and is meant to be protective of the public at large from exposure to sewage discharges from upsets and overflows of the collection system. There is no value in requiring 24-hr reporting of minor upsets and overflow of the sanitary sewer system at a military installation if there is no risk to human health or the environment, the overflow does not reach waters of the United States, and there is no exposure risk to the public. Requiring 24-hr reporting for all sewage upsets and overflows, no matter how minor will only result in unnecessary administrative churn over minor incidents.

Additionally, these types of minor incidents should not be subject to a 5 day compliance follow-up report. Recommend the following language:

- e. any overflow prior to the treatment works over which the permittee has ownership or has operational control. An overflow is any spill, release or diversion of municipal sewage including:
 - i. an overflow that results in a discharge to waters of the United States; and
 - ii. any overflow of wastewater that creates a risk to human health, the environment, or exposure by the public, this includes overflows that do not result in discharge to the waters of the United States.

If the proposed language is not acceptable, NMII can maintain a log of all upsets available for inspection if needed, but should not be subject to 24-hr reporting for minor upsets that do not represent a threat to human health, the environment, or the public.

Additionally, recommend changing the requirement to submit a follow-on report within 5 days, to requiring any follow-on reports within 7 days. As a federal facility, there are chain-of-

command correspondence approval procedures, which makes it very difficult to submit a detailed follow-on report within 5 days.

Response:

24-hour notice of noncompliance for events that may endanger health or the environment is required by 40 CFR § 122.41(l)(6). The regulation also requires a written report within 5 days that details the noncompliance and the completed or planned correction. Standard permit language also requires this notification and reporting even if an overflow does not reach waters of the U.S. Overflows may represent a health risk for workers and not just permanent residents (which EPA understands are not present at NMII), and may also represent a lack of proper operation and maintenance. EPA can waive the written report requirements on a case-by-case basis if the oral report was received within 24 hours (40 CFR 122.42(l)(6)(iii)). If the Navy determines that it needs more time to provide the written report to EPA, it can also request additional time on a case-by-case basis. As a result of other permit changes, 24-hour notice of noncompliance reporting is now Part III.G of the permit. No changes were made as a result of this comment.

Comment 25: Table 1 Effluent Limitations and Monitoring Requirements

The NMII WWTP has significant periods of time when it is not discharging (see operational status in comment 2). There must be language in the permit sampling schedule that will address sampling requirements when the plant is not operating for periods of time such as an entire week (TSS sampling, pH require weekly) or an entire month. Fecal currently requires 5/month, which will be hard to complete if the plant is shut down for several weeks or part of a week. pH is currently required 5/week on different days, which will be impossible if only operating part of the week. Permit should specify that weekly sampling is only required if the plant is actually operating during that week and should provide clarity on sampling requirements during periods of time when plant operation is intermittent. Recommend addressing monitoring requirements during intermittent periods of operation within the Notes of Table 1.

Response:

EPA recognizes that discharge from the facility is intermittent. The permit only requires sampling and reporting when the outfall is discharging. If the facility is not discharging for an entire month, the Permittee should report a “NODI” (no discharge) code for the month. For parameters with weekly or multiple times per week monitoring requirements, if there is no discharge during the entire week, then no monitoring is required. The permittee should note on the DMR the weeks when no discharge occurred. If the facility discharges for one or more days during a week, then monitoring is required. For pH, monitoring is only required for as many days during the week as the facility discharges (up to 5 days). EPA revised the monitoring requirements for bacteria (fecal coliform and Enterococci) to accommodate the intermittent discharge and more accurately reflect the Washington water quality standard at WAC 173-201A-210(3)(b)(i) which states “A minimum of three samples is required to calculate a geometric mean for comparison to the geometric mean criterion. Sample collection dates shall be well distributed throughout

the averaging period so as not to mask noncompliance periods.” The final permit requires sampling 3 times per month distributed throughout the calendar month, rather than five samples every 3-7 days. If the Navy is unable to collect a minimum of 3 samples, sampling and reporting may be adjusted as follows: report the maximum value as the instantaneous maximum, do not report a geometric mean, and note the number of samples collected (one or two). If two samples are collected, also note the value of the second sample. Footnotes have been added to Table 1 in the permit, specifying that sampling for all parameters should only occur when the facility is operating and discharging (footnote (1)), and clarifying the reporting requirements for bacteria if the permittee cannot collect all the required samples (footnote (10)). What is now footnote (8) (formerly footnote (3)) has also been revised to describe fecal coliform as well as Enterococci bacteria and to reflect the revised monitoring requirements of 3 samples per month.

Comment 26: CBOD5 and BOD5 monitoring requirement

CBOD5 is a subset of BOD5. Request that either CBOD5 or BOD5 be removed to require monitoring of only one of the two parameters.

Response:

Monitoring was established consistent with the methodology in the PSNGP. CBOD₅ is a subset of BOD₅ and provides different information useful in assessing nutrient characteristics of the discharge. The permit requires less frequent monitoring for CBOD₅ than for BOD₅. The permit is unchanged as the result of this comment.

Comment 27: Permit Part I.B.3 & 4 Temperature Monitoring

Permit Part I.B.3&4 listed requirements for temperature monitoring conflict with the continuous monitoring requirements for temperature detailed in Permit Part I.B.3&4 of the draft permit. The Fact Sheet appears to support the Table 1, daily grab requirement vice continuous monitoring which is more appropriate for the NMII WWTP. The NMII WWTP is a low discharge volume, limited operation WWTP. The plant does not currently have thermistors with a data monitoring system installed that meets the requirements listed in the draft permit in 1.B.3&4 for continuous monitoring. Establishing continuous temperature monitoring for the effluent would be a new requirement for the WWTP. Recommend a daily temperature monitored on operational days only, as listed in Table 1 and as it appeared to be proposed in the fact sheet

If continuous temperature monitoring is required it will likely take approximately 36 months to obtain funding and install the system. If required, request a phase-in period with daily measurements when operating, for the first 3 years, with the full requirement to do detailed monitoring at 36 months from permit issuance.

Response:

EPA intended for the permit to require effluent temperature grab sampling once per operational day. EPA has removed Parts 1.B.3 and 1.B.4 that refer to continuous monitoring requirements.

Comment 28: Table 1. TIN Errors

TIN (interim limit) mg/L: superscript (f) references pertains to flow. Correct superscript reference

TIN (interim limit) lbs/day: superscript (g) references a calculation for mg/L as N and should be corrected to reference the calculation for lbs/day.

The same applies to TIN final limit calculation superscripts.

Response:

In revising the permit, EPA revised all the superscripts/footnotes in Table 1 to be only numbers. In doing so, EPA corrected the errors pointed out by the Navy: the superscript reference for TIN interim limit and final limit (mg/L) is now (6) and pertains to calculating TIN. The superscript reference to the related mass limits is now (7).

Comment 29: Table 1. Superscript reference (d)

Superscript reference (d) for CBOD₅, Total Ammonia, Nitrate, TKN, and TOC references quarterly sampling. Correct to (e), which pertains to composite sampling.

Average monthly TIN superscript (h) should be corrected to superscript (i), which pertains to monthly TIN calculation.

Annual total TIN superscript (i) should be corrected to superscript (j), which pertains to annual TIN calculation.

Response:

In revising the permit, EPA revised all the superscripts/footnotes in Table 1 to be only numbers. In doing so, EPA corrected the errors pointed out by the Navy: superscript (d) is now superscript (2) for CBOD₅, Total Ammonia, Nitrate, TKN, and TOC quarterly sampling; superscript (h) is now superscript (16) for monthly TIN calculation; and superscript (i) is now superscript (17) for annual TIN calculations. In addition, EPA changed footnote (2) (formerly (e)) regarding 24-hour composite to reference the full definition in the Definitions section of the Permit.

Comment 30: Permit Part I.B.4.

‘File must be submitted annually to EPA and IDEQ’. Define IDEQ.

Response:

The acronym was included by mistake as a typographical error. EPA has removed the acronym from the draft permit.

Comment 31: Permit Part II.E.2.

Define 'as soon as possible'.

Response:

The draft permit defines 'as soon as possible' as the implementation timeline shown in Table 4 of the draft permit. The permit is unchanged as the result of this comment.

Comment 32: Permit Part II.E, Table 4, Task 2

Provisions herein should not be interpreted to require obligations or payments of funds in violation of the Anti-Deficiency Act, 31 U.S.C. § 1341. The Navy will commit to complying with this permit with the funds and resources it is allocated.

Response:

EPA understands the Navy's obligation to comply with the Anti-Deficiency Act, 31 U.S.C. § 1341. The permit is unchanged as the result of this comment.

Comment 33: Permit Part III.B.3.

"Permittee must submit the Outfall Evaluation Report electronically as an attachment using EPA's NetDMR, see section C.4 below for instructions."

There is no section C.4. Please correct.

Response:

This was a typographical error made in the draft permit. The permit has been changed to remove the cross reference entirely and describe the submission instructions in the same Part.

Comment 34: Permit Part IV.K

Please add: "This Permit is subject to modification, revocation and reissuance, or termination at the request of any interested person (including the Permittee) or upon EPA initiative. This includes new information which was not available at the time of permit issuance and would have justified the application of different permit conditions at the time of issuance, including but not limited to future monitoring results."

Response:

Pg. 29, IV, K. Reopener is a standard permit provision that is contained in all EPA Region 10 permits. The reopener provision in the permit is included in pursuant to 40 CFR § 122.44(c). The scenarios under which a NPDES permit can be modified, revoked and reissued or terminated are set forth in 40 CFR §§ 122.62 and 122.64. It is unnecessary for the permit to contain the modification language that the Navy has requested as the regulations apply regardless. The permit is unchanged as a result of this comment.

Fact Sheet Comments (Navy)

Comment 1: Fact Sheet Section II.A.1, Service Area

Please revise section II.A.1 ‘Service Area’. Naval Magazine Indian Island has no “resident” 24 hour population and no personnel permanently reside on the installation. There are approximately 170 total personnel (mix of civilians and service members) that work at the installation. The vast majority of personnel work only on dayshift with a limited number of backshift and nightshift personnel.

Response:

EPA acknowledges the comment submitted by the Navy. EPA Region 10 does not revise fact sheets after the public comment period. Instead, the response to comments document serves to clarify any errors that were made in the fact sheet or any further explanation that is necessary to support a permit condition.

Comment 2: Fact Sheet Section II.A.2, Treatment Process

It is important to note that the NMII WWTP only operates intermittently and there are significant periods of time when it is not discharging at all. This must be taken into account when establishing sampling frequencies and requirements. It should be explicitly stated that daily and weekly sampling must only occur when the plant is operating. See tables 1 and 2 below.

Table 1

NMII Discharge Volumes, 2017 - 2021		
Year	volume of effluent discharged in 1 year (million gallons)	Average volume discharged per day, when plant is in operation (mgd)
2017	2.09	0.0138
2018	2.5	0.0145
2019	0.88	0.0093
2020	2.15	0.0187
2021	1.23	0.0127

Table 2

NMII <u>Operational</u> days, 2017 - 2021	
Year	Days WWTP operational

2017	153 (41.92% of year)
2018	176 (48.22% of year)
2019	95 (26.03% of year)
2020	115 (31.42% of year)
2021	97 (26.58% of year)

Response:

See Response to Permit Comment #25.

Comment 3: Fact Sheet Section II.A.2, Treatment Process

The NMII WWTP also filters its effluent through sand filters prior to UV disinfection. That should be included in this section.

Response:

EPA acknowledges that the NMII WWTP filters effluent through sand filters prior to UV disinfection. EPA Region 10 does not revise fact sheets after the public comment period. Instead, the response to comments document serves to clarify any errors that were made in the fact sheet or any further explanation that is necessary to support a permit condition.

Comment 4: Fact Sheet Section II.E, Receiving Waters

Correct the error message in the first paragraph of that section.

Response:

EPA acknowledges that there was an error message in the first paragraph of Section II.E. EPA Region 10 does not revise fact sheets after the public comment period. Instead, the response to comments document serves to clarify any errors that were made in the fact sheet or any further explanation that is necessary to support a permit condition.

Comment 5: Fact Sheet Section II.E.1, Water Quality Standards

Last paragraph: Please correct the name of the facility – it should be US Naval Magazine Indian Island (not Reservation).

Response:

EPA acknowledges that this sentence should have stated Naval Magazine Indian Island instead of Reservation. EPA Region 10 does not revise fact sheets after the public comment period. Instead, the response to comments document serves to clarify any errors that were made in the fact sheet or any further explanation that is necessary to support a permit condition.

Comment 6: Fact Sheet Section II.E.2.b, Water Quality Limited Waters

The Naval Magazine Indian Island (NMII) Wastewater Treatment Plant (WWTP) is a small, low-volume, infrequently operated wastewater treatment plan, as can be seen in Table 1 and Table 2 below.

Table 1

NMII Discharge Volumes, 2017 - 2021		
Year	volume of effluent discharged in 1 year (million gallons)	Average volume discharged per day, when plant is in operation (mgd)
2017	2.09	0.0138
2018	2.5	0.0145
2019	0.88	0.0093
2020	2.15	0.0187
2021	1.23	0.0127

Table 2

NMII Operational days, 2017 - 2021	
Year	Days WWTP operational
2017	153 (41.92% of year)
2018	176 (48.22% of year)
2019	95 (26.03% of year)
2020	115 (31.42% of year)
2021	97 (26.58% of year)

The Washington State Department of Ecology (WADOE) Puget Sound Nutrient General Permit (PSNGP), issued December 1, 2021 defines a “Small Loader” as: “Small loader means a wastewater treatment plant discharging less than 100 lbs/day TIN. Cumulatively, small loaders represent <1% of the domestic point source TIN load.”

There is currently limited TIN sampling data available for the effluent of the NMII WWTP. An informational sample was taken on 9/21/2021 which indicated a result of 20.79 mg/L, TIN in the effluent. Below, for comparison, are the daily and yearly calculated TIN values, assuming the 9/21/2021, 20.79 mg/L TIN effluent reading is representative:

Table 3 - Daily TIN (lbs)

Average Daily TIN (lbs/day), Small POTW (from PSNGP)	19.11 lbs/day
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Est Daily TIN (lbs/day), NMII WWTP at Design Maximum Flowrate	7.46 lbs/day
Est. Daily TIN (lbs/day), NMII WWTP Maximum Observed Flowrate	3.20 lbs/day
Est. Daily TIN (lbs/day), NMII WWTP Actual	0.81 lbs/day

Table 4 – Yearly TIN (lbs)

Average Max Annual TIN, Small POTW	6975.15 lbs
Est. Max Annual TIN (lbs), NMII WWTP Maximum Design Flowrate	2721.33 lbs
Est. Max Annual TIN (lbs), NMII WWTP Maximum Observed Flowrate	1169.29 lbs
Est. Annual TIN (lbs), NMII WWTP Actual	296.06 lbs

As shown in Table 3 and 4, if currently available data is representative, then the NMII WWTP operations should result in the plant being a very small loader of TIN under its worst operating conditions, even relative to other “small loaders”. Nevertheless, EPA is proposing to apply more stringent compliance timelines and effluent limitations than those for small loaders contained in the PSNGP. As enacted, the PSNGP does not require small loaders to comply with a 3 mg/L (1.1 lbs/day) effluent limit as currently contained in the draft permit for NMII. Furthermore, small loaders are only required to submit one final Nitrogen Optimization Plan and Report by the end of the 5-year permit cycle, however EPA is requiring NMII to submit a Nitrogen Optimization Plan and Report within 18 months of enacting the permit. As a federal facility with unique budgetary and planning requirements, NMII should be afforded at least an equal amount of time to prepare and submit the report and should not be subject to stricter effluent limitations than those imposed by WADOE in the PSNGP. The Navy requests that EPA change the required submission date of the Nitrogen Optimization Plan and Report to match the requirements for PSNGP small loaders, resulting in a report due date at the end of the first permit cycle, 5 years from when the permit becomes effective. Additionally, the Navy requests that the final effluent limitations of 3 mg/L (1.1 lbs/day) be removed and NMII remain in a monitor and report only status to match the PSNGP requirements for small loaders.

Response:

See Response to Permit Comment #1, above.

Comment 7: Fact Sheet Section II.E.2.b, Water Quality Limited Waters

The NMII WWTP outfall is located within Port Townsend Bay which is subject to strong tidal mixing and exceptional water quality. Within Section II.E of the Draft NPDES Permit Fact Sheet, it is acknowledged that “Ecology has not documented any water quality impairments in the receiving water in the vicinity of the outfall”. Receiving water quality data in Table 3 of

Draft Fact Sheet does not indicate any current dissolved oxygen impairments in the receiving water in the vicinity of the outfall. Puget Sound Dissolved Oxygen Model (Nutrient Load Summary for 1999-2008, WDOE Publication No. 11-03-057), on page 61, states that net oceanic dissolved inorganic nitrogen (DIN) load into Puget Sound south of Deception Pass contributes 68% of the total DIN, which leaves 32% of the total DIN load into Puget Sound from local rivers and WWTPs. Of this 32%, WWTPs contribute 44% annually (page 59 of Puget Sound Dissolved Oxygen Model). Therefore, the current dissolved inorganic nitrogen load from WWTPs into Puget Sound is only about 14%. Additionally, EPA has not presented a scientific argument to demonstrate that any water quality improvements would result from subjecting the NMII WWTP to the proposed nitrogen reduction requirements. Therefore, there is no data to indicate that the small TIN contribution from the NMII WWTP contributes a risk to the water quality in the receiving waters. Based on the minimal contribution of TIN by the NMII WWTP, and the lack of data indicating that these minimal amounts will produce any water quality issues, the Navy requests the nutrient reduction requirements be removed.

Response:

See Response to Permit Comment #2, above.

Comment 8: Fact Sheet Section II.E.2.b, Water Quality Limited Waters

Based on the age of the WWTP, current treatment processes, and supported by the 9/21/2021 informational effluent TIN sampling results, it is unlikely that the NMII WWTP can comply with the TIN effluent standard of 3.0 mg/L established in the draft permit without significant capital upgrades. Given the location of the outfall, and the water quality of the receiving waters, it does not appear that there would be a significant environmental benefit to regulating TIN discharges of the NMII WWTP, sufficient to justify the significant capital investment that would be required to install nitrogen treatment processes and bring the plant into compliance with the 3.0 mg/L TIN effluent standard established in the draft permit.

Response:

See Response to Permit Comment #3, above.

Comment 9: Fact Sheet Section II.E.2.b, Water Quality Limited Waters

In summary, recommend that PSNGP derived nutrient requirements be removed from the draft permit. If PSNGP derived requirements are not removed, recommend that PSNGP requirements be “monitor only”. If no dissolved oxygen impairments are documented within the immediate receiving waters, and if the monitoring results demonstrate minimal impact to receiving waters from NMII WWTP TIN, recommend that the NMII WWTP be given the opportunity to apply to remain in “report only” status for TIN.

Response:

See Response to Permit Comment #4, above.

Comment 10: Fact Sheet Section II.E.2.b, Water Quality Limited Waters

Because nutrient removal technologies are still evolving and not widely practicable, as acknowledged by WADOE in the PSNGP Fact Sheet, applying the nutrient reduction requirements of the PSNGP to FOTWs in this draft permit is premature. WADOE’s PSNGP Fact Sheet stated that “[t]he current body of knowledge regarding nutrient treatment technologies continues to evolve as researchers develop and study new microbial populations and advanced treatment processes.” “Ecology encourages creative approaches to reducing nutrient loads in Puget Sound and understands the Agency will need to support any permittee that elects to pursue innovative solutions that have not yet seen full-scale implementation in the state.” This does not appear to be a very cost-effective way to achieve any meaningful nutrient reduction and will result in patchwork implementation strategies, ultimately resulting in a longer timeframe to realize any positive results.

Response:

See Response to Permit Comment #6, above.

Comment 11: Fact Sheet, Table 5

Current Footnotes (i) for calculating average monthly TIN load:
 Monthly average TIN load (lbs as N)

$$= \left(\frac{\sum \text{Calculated TIN loads} \left(\frac{\text{lbs}}{\text{day as N}} \right)}{\text{number of samples} \times \text{number of days in the calendar month}} \right)$$
 Footnote should be revised to show:

Monthly average TIN load (lbs as N) = ((sum of calculated TIN loads (lbs/day as N)) / number of samples) x number of days of flow in the calendar month.

Response:

See Response to Permit Comment #18, above.

Comment 12: Fact Sheet, Table 6

There is a lack of sufficient data to support the listed Total Inorganic Nitrogen (TIN) AKART limit of 3.0 mg/L (1.1 lbs/day) for the NMII WWTP. TIN levels should be studied over the first five years of the permit and the potential environmental benefit of additional nutrient controls should be weighed against the overall costs to bring the WWTP into compliance with the standard.

Response:

See Response to Permit Comment #1-6.

Comment 13: Fact Sheet Part III.A.2.a, BPJ Based Secondary Treatment Effluent Limits

NAVMAG Indian Island is a minor facility with no permanent residents and the WWTP is a very small plant, intermittently operated plant with a design discharge volume of 0.043 mgd. The maximum daily discharge rate in the last 5 years was 0.0187 mgd, well below the design rate and permit limit. Application of BPJ should take this into consideration and allow for more flexibility and compliance timelines for this small plant, compared to POTWs. It should also

take this into account when determining applicability of PSNGP nutrient reduction requirements carte blanche to the NMII WWTP as the NMII is smaller and operates under a different model than a POTW. At minimum POTW timelines for compliance should not be applied uniformly to this plant without taking those considerations into account.

Response:

See Response to Permit Comment #5.

Comment 14: Nutrient Effluent Limits

While EPA has analyzed the factors in 40 CFR 125.3(c) in the Fact Sheet and reached the conclusion to apply TBEL, the Navy believes this determination is premature and that EPA has not properly considered the age of the equipment, the current processes employed or the cost necessary to achieve the effluent reduction. The Navy will not have a good understanding of the potential environmental benefit or of the cost involved of installing nutrient controls for the NMII WWTP until further monitoring and study has been conducted regarding TIN loading for the plant. However, based on the size of the plant, there is a strong potential that installing additional controls would result in only limited Environmental benefit. Additionally, as previously laid out, the cost of achieving any nutrient reductions will likely not be outweighed by the marginal potential benefit to water quality. Recommend that TIN limits not be established unless monitoring and evaluation during the first five years of the permit demonstrates there would be a sufficient environmental benefit relative to the cost required to achieve the proposed TIN effluent limits for the NMII WWTP.

Response:

See Response to Permit Comment #1-6.

Comment 15: Nutrient Compliance Schedule

At this time the Navy does not know the extent of the capital upgrades or cost required to make the necessary changes to meet the PSNGP derived TIN effluent limits. As an FOTW, the Navy will have to fund any changes through federal appropriations. A determination regarding the cost and relative benefit of achieving TIN effluent reductions for the NMII WWTP likely cannot be adequately assessed at this time (see earlier comments regarding nutrient reduction requirements) and therefore a BPJ determination cannot be made.

Response:

See Response to Permit Comment #5.

Comment 16: Implementation Schedule

Starting at ‘Establishment of TBEL for TIN’ and ending at the bottom of Table 9 on page 23: This is a repeat of the statement and table presented on page 20 and 21. Please remove one.

Response:

EPA verified there is only one implementation schedule in the draft permit. EPA Region 10 does not revise fact sheets after the public comment period. Instead, the response to comments document serves to clarify any errors that were made in the fact sheet or any further explanation that is necessary to support a permit condition.

Permit Comments (Port Gamble S’Klallam Tribe)

Comment 1:

While the proposed permit does expand the scope of contaminant monitoring compared to the existing 1985 permit, it does not go far enough. Indian Island is a former Superfund Site, and while the contamination has been “cleaned up” or capped, PFAS were excluded, as they were not known to be harmful substances at the time. PFAS are ubiquitous and are particularly concentrated in areas where firefighting foam is used. The U.S. Navy is already sampling drinking water wells for PFAS contamination due to its extensive use of firefighting foam on its bases (including Indian Island), but effluent sampling has not occurred. We would like the CWA 401 Water Quality Certification to include the condition that the Navy perform PFAS monitoring on the WWTP’s effluent, as residents of the base are likely to be exposed to high levels of PFAS and are thus more likely to contaminate the system.

Response:

PFAS monitoring is included in the final permit. Monitoring for PFAS chemicals is required for 2 years (8 quarters), beginning at the start of the first complete quarter in the third year of the permit term. The monitoring is delayed to allow time for the permittee to prepare for the sampling effort. Two years of monitoring will provide a significant data set to inform EPA when the permit is reissued. EPA is developing new analytical methods to test for PFAS compounds in wastewater. However, there is not currently an analytical method approved in 40 CFR Part 136, so EPA recommends using Clean Water Act (CWA) wastewater draft analytical method 1633.³ EPA is working to deepen our understanding of these chemicals so that we can take steps to continue reducing the risks posed by PFAS and provide certainty to state, local, and tribal partners, the regulated community, and the public. The purpose of the monitoring and reporting requirements is to better understand potential discharges of PFAS from this facility and to inform future permitting decisions, including the potential development of water quality-based effluent limits. EPA has many PFAS resources at this link: <https://www.epa.gov/pfas>.

Comment 2:

While the draft permit proposes broader regulation on the WWTP effluent, it notably leaves in place several requirements with no changes. Biochemical oxygen demand (BOD) and total suspended solids (TSS) standards have not been changed, despite the original permit dating from 1985 when TSS and BOD removal technologies were more immature than they are today. We would like more stringent standards for these parameters. The goal of pollution regulation should

³ https://www.epa.gov/system/files/documents/2021-09/method_1633_draft_aug-2021.pdf

be to move towards a state of no harmful release whatsoever, and not to maintain the status quo as is too often seen in NPDES and other permits today. A scheme involving progressively stringent permits as time passes and technology matures should be the norm, and if EPA is unwilling to set such standards in its own permits, it is incumbent upon the certifying authority under CWA 401 to add those standards as conditions for certification.

Response:

There are no numeric water quality standards (WQS) for TSS or BOD. As explained in the fact sheet, the permit includes TBELs based on EPA's secondary treatment regulations (40 CFR 133.102). These regulations have not changed since the last permit issuance; therefore, the TBELs in the current permit are the same as in the existing permit. However, the permit does include a final TIN limit of 3 mg/L. Compliance with the new TIN limit using biological treatment methods will improve effluent quality and have a positive impact to the receiving water which may include increased dissolved oxygen. In this way, a TIN limit has a similar effect as a more stringent BOD limit.

Comment 3:

We would like monitoring for other contaminants that are ubiquitous in sewage but go unmonitored and untreated. Pharmaceuticals, heavy metals, BPA, dioxins/furans, PCBs, microplastics, and pesticides should be monitored and efforts should be made to eliminate their discharge. These substances all pose a great threat to the ecology of Puget Sound, and by extension its inhabitants. The Tribe's treaty rights are also at risk, as shellfish are often the first animals to be impacted by pollutants in the water column, salmon numbers are still in a precarious position, and forage fish are consistently declining.

Response:

There are no WQS for pharmaceuticals and microplastics and therefore EPA cannot establish water quality-based effluent limits. Other contaminants like heavy metals, etc. are not pollutants of concern in this particular discharge and therefore there is no reasonable potential. This is a very small facility with a limited intermittent discharge; there is no evidence that these pollutants are being discharged from the facility and therefore monitoring for these pollutants is not necessary. However, the stringent nutrient limit and resulting nutrient removal technology will also address other pollutants. For example, a report from Ecology⁴ shows that advanced nutrient removal technology more than doubles the number of analytes reduced versus secondary treatment alone (study of removal of 172 analytes associated with pharmaceuticals and personal care products).

Comment 4:

There was a decrease in the frequency of bacteria monitoring between the draft permit proposed during public notice and the proposed final permit shared with the Tribe. Can EPA explain why?

⁴ <https://apps.ecology.wa.gov/publications/SummaryPages/1003004.html>

Response:

The sampling requirement in the draft permit of 5 samples per month taken every 3 to 5 days was an error, as it was based on ID WQS. The WA WQS require sampling frequency of 3 times per month for bacteria. Further, the facility discharges infrequently and therefore sampling in accordance with the ID WQS (5 times monthly, taken every 3 – 7 days), is not feasible. EPA revised the monitoring requirements for bacteria (from 5 to 3 times per month) and to be consistent with the Washington WQS (WAC 173-201A-210(3)(b)(i)).

Comment 5:

The Tribe would like to receive noncompliance reports, as noncompliance with the permit can impact their treaty rights (fishing and shellfish harvesting areas).

Response:

The final permit includes a provision in Part III.G.4 that requires twenty-four hour notice of noncompliance reports to go to the Tribe as well as to EPA.

Other Permit Revisions**PFAS Monitoring**

Per- and polyfluoroalkyl substances (PFAS) are a group of synthetic chemicals that have been in use since the 1940s. PFAS are found in a wide array of consumer and industrial products. Due to their widespread use and persistence in the environment, most people in the United States have been exposed to PFAS. Discharges of PFAS above certain levels may cause adverse effects to human health or aquatic life. EPA issued a memo “Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs” in December 2022, which recommends influent, effluent, and sludge sampling for PFAS chemicals at POTWs, including those that do not receive industrial discharges. Though NMII WWTP is an FOTW, not a POTW, the same recommendations may be applied given that the nature of the influent and effluent is similar to that of a POTW.

Changes have been made to the permit to require that the Navy conduct quarterly influent, effluent, and sludge sampling for PFAS chemicals for two years (Table 1, and further described in Part I.B.8 and Table 2). The monitoring requirements for PFAS chemicals are deferred until the third and fourth years of the permit term, which will give the Navy time to plan for this new monitoring requirement.

The purpose of these monitoring and reporting requirements is to better understand potential discharges of PFAS from the NMII WWTP and to inform future permitting decisions, including the potential development of water quality-based effluent limits. EPA is authorized to require this monitoring and reporting by CWA section 308(a). The permit conditions reflect EPA’s commitments in the PFAS Strategic Roadmap, which directs the Office of Water to leverage NPDES permits to reduce PFAS discharges to waterways “at the source and obtain more

comprehensive information through monitoring on the sources of PFAS and quantity of PFAS discharged by these sources.”

Other Minor Changes

- Reporting and submission requirements for the Outfall Evaluation Report and the Nitrogen Optimization Report were moved to Part II from Part III.
- On January 6, 2023, EPA issued a final rule that updates the civil monetary penalty amounts in the Clean Water Act pursuant to the Federal Civil Penalties Inflation Act of 1990, as amended through the Federal Civil Penalties Inflation Adjustment Improvements Act of 2015. As a result, the civil and administrative penalties listed in Parts IV.B.1 and 2 were updated to reflect the adjusted penalty amounts.