2024

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Commonwealth of the Northern Mariana Islands

Water Quality Assessment Integrated Report

CNMI Bureau of Environmental and Coastal Quality

September 2025

Cover Photo: Brian Bearden – *Unai Fanhang (Hidden Beach, San Juan Beach), Saipan*

DRAFT – For Public Review

This draft report has been prepared for public review and comment. It does not represent final agency determinations.

Bureau of Environmental and Coastal Quality
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Glossary of Acronyms and Key Terms

Acronym/Term	Definition
ALUS	Aquatic Life Use Support – method for evaluating biological condition of coral reef and benthic habitats.
ATTAINS	Assessment and TMDL Tracking and Implementation System – U.S. EPA's online database of water quality assessments.
BECQ	Bureau of Environmental and Coastal Quality – CNMI agency responsible for environmental protection.
BMPs	Best Management Practices – structural, vegetative, or managerial practices to reduce pollutant inputs.
CALM	Consolidated Assessment and Listing Methodology – EPA framework for classifying waterbody attainment and impairment status.
CWA	Clean Water Act – U.S. federal law governing water quality and pollution control.
DEQ	Division of Environmental Quality – former CNMI division, now incorporated under BECQ.
DO%	Dissolved Oxygen (percent saturation) – indicator of water quality and aquatic life support.
DU(s)	Designated Use(s) – beneficial uses of a waterbody defined in the CNMI WQS (e.g., aquatic life, recreation, aesthetics).
EPA	U.S. Environmental Protection Agency.
IR	Integrated Report – biennial Clean Water Act Section 303(d)/305(b) reporting document.
IWMP	Integrated Watershed Management Plan.
MMT	Marine Monitoring Team – CNMI's long-term coral reef and benthic monitoring program.
NCCA	National Coastal Condition Assessment – EPA's probabilistic coastal water quality survey.
NPS	Nonpoint Source pollution – diffuse pollution not from a specific pipe/discharge (e.g., stormwater, runoff).
QAPP	Quality Assurance Project Plan – ensures data quality, precision, and defensibility in monitoring programs.
RAM	Rapid Assessment Method – field-based protocol to evaluate wetland condition.
SVAP	Stream Visual Assessment Protocol – rapid assessment method for stream and riparian condition.
TMDL	Total Maximum Daily Load – pollutant reduction plan for impaired waters under the CWA.

Acronym/Term	Definition
USEPA	U.S. Environmental Protection Agency (alternative form, used interchangeably with EPA).
WQS	Water Quality Standards – designated uses, numeric/narrative criteria, and antidegradation provisions that protect water quality.
WQS/NPS	BECQ's Water Quality Standards and Nonpoint Source Pollution Program.
WQX	Water Quality Exchange – EPA's national database for water quality data.

Term	Definition
Attainment	A waterbody is meeting the applicable Water Quality Standards (WQS) for its designated uses.
Impairment	A waterbody is not meeting one or more designated uses because water quality standards are exceeded.
Delisting	Removal of a waterbody or pollutant from the 303(d) impaired waters list when new data or corrected analysis shows standards are attained.
Designated Uses (DUs)	Specific beneficial uses of a waterbody protected by the CNMI WQS (e.g., recreation, aquatic life, fish consumption, aesthetics).
Integrated Report (IR)	A combined Clean Water Act 305(b) and 303(d) report, submitted every two years, that summarizes water quality status and identifies impaired waters.
Pollutant	A substance (e.g., nutrients, metals, bacteria) that causes a violation of WQS when present in excess.
Pollution	Broader than pollutants; includes alterations of waterbody condition not tied to a specific pollutant (e.g., flow changes, habitat destruction).
TMDL (Total Maximum Daily Load)	The maximum amount of a pollutant that a waterbody can receive while still meeting WQS; forms the basis for pollutant reduction plans.
Waterbody Segment	A defined stretch of water (stream reach, coastal shoreline, lake, or wetland area) assessed separately for Clean Water Act reporting.

A. Executive Summary

A.1. Purpose of the Report

The Commonwealth of the Northern Mariana Islands (CNMI) Bureau of Environmental and Coastal Quality (BECQ), Division of Environmental Quality (DEQ), is responsible for monitoring, assessing, and protecting water quality within the CNMI. This report fulfills the requirements of Sections 303(d), 305(b), and 314 of the Clean Water Act (CWA). Integrated Reports are submitted every two years to summarize monitoring results from the previous two fiscal years and to evaluate whether CNMI waters are meeting water quality standards (WQS) designed to protect designated uses. These uses include recreation, the propagation of aquatic life, fish and shellfish consumption, aesthetic enjoyment, and (where applicable) potable water supply.

For the 2024 cycle, BECQ-DEQ has streamlined this report to focus on statutory requirements. Readers seeking the more detailed, waterbody-by-waterbody narratives presented in the 2018, 2020, and 2022 Integrated Reports may access those documents on the BECQ Water Quality and Non-Point Source Branch website. Detailed assessment tables and newly added stream narratives are included in Appendices I–V.

https://www.deq.gov.mp/water-quality-surveillance-non-point-source.html.

To complement this streamlined report, more detailed waterbody-level data are publicly available through EPA's ATTAINS database: https://www.epa.gov/waterdata/get-data-access-public-attains-data. (Please note that the 2024 data may not be visible until approved by USEPA, likely after publication of this report as Final).

A.2. Overall Status of CNMI Waters

The CNMI has **240.5 miles of coastal shoreline**, **100.5 miles of streams**[1], **716.2 acres of wetlands**, and **267.4 acres of lakes**[2].

- **Coastal waters:** 90.7 miles (38%) fully support all designated uses; 51.8 miles (21%) do not have enough data for a full assessment; and 98.0 miles (41%) are impaired or unassessed.
- **Freshwater Streams:** 0 miles (0%) fully support all designated uses; 50.2 miles (50%) do not have enough data for a full assessment; 50.3 miles (50%) are impaired.
- **Lakes:** 0 acres (%) fully support all designated uses; 210.0 acres (79%) do not have enough data for a full assessment; 57.4 acres (21%) are impaired.

[1] Streams on the Northern Islands have not been mapped and are not included in this total.
[2] Lake Hagoi Lagu on the island of Anatahan has not been mapped and is not included in this total.

- **Wetlands:** 58.6 acres (8%) fully support all designated uses; 55.4 acres (8%) do not have enough data for a full assessment; 568.4 acres (79%) are impaired, and 33.8 acres (5%) are unassessed.

Tables A-2 through A-10 provide attainment status by waterbody type and island using EPA's Consolidated Assessment and Listing Methodology (CALM) rating nomenclature, as described in **Table A-1** below, and in more detail in Section C.2.3.

TABLE A-1. EPA Consolidated Assessment and Listing Methodology (CALM) Categories Used in the CNMI Integrated Report

EPA CALM Category	Description
1 – All uses attained	All designated uses (DUs) are attained; none are threatened. Waters meet all water quality standards (WQS) throughout the entire waterbody.
2 – Some uses attained	Some DUs are attained; no DU is threatened or impaired. Insufficient data exist to determine if the remaining uses are attained (assumed attained unless shown otherwise).
3 – Insufficient data	Data are insufficient to determine if any DUs are attained, threatened, or impaired. There is reasonable potential that one or more uses are not attained.
4 – Impaired, no TMDL required	One or more DUs are impaired or threatened, but a TMDL is not required. Subcategories: • **4a** – TMDL completed • **4b** – Other enforceable controls in place • **4c** – Impairment not caused by a pollutant (e.g., habitat modification, hydrologic alteration, overharvesting)
5 – Impaired, TMDL required	One or more DUs are impaired or threatened due to pollutant(s); a TMDL is required. Subcategory: • **5r** – Advance Restoration Plan (ARP) implemented in lieu of immediate TMDL development.

[1] CWA defines "pollution not caused by a pollutant" as "the man-made or man-induced alteration of the chemical, physical, biological, or radiological integrity of water" (Section 502(19))

[2] An Advance Restoration Plan (ARP) is a plan designed to address impairments for waters that will remain on the CWA 303(d) list (i.e., Category 5), as restoration activities are implemented prior to TMDL development.

TABLE A-2. 2024 Attainment Status of CNMI Coastal Waters by CALM Category

Waterbody Type	Category							total Assessed	total in State
	1	2	3	4a	4b	4c	5		
Ocean coast (Miles)	90.7	23.6	28.2				98.0	240.5	240.5
Stream (Miles)		*38.0	12.2				50.3	100.5	100.5
Lake (Acres)		?	**210.0				57.4	267.4	267.4
Wetland (Acres)	58.6		55.4			568.4		682.4	716.2

* Streams on the Northern Islands have not been mapped and are not included in this total.
** Lake Hagoi Lagu has not been mapped and is not included in this total.

Coastal Waters

The CNMI has **240.5 miles of coastal shoreline**: 90.7 miles (38%) fully support all designated uses; 56.0 miles (23%) do not have enough data for a full assessment; and 93.8 miles (39%) are impaired or unassessed.

Tables A-3 through A-7 provide attainment status by island and waterbody segment (i.e., watershed) using EPA's Consolidated Assessment and Listing Methodology (CALM) rating nomenclature, as described in **Table A-1** above.

TABLE A-3. 2024 Attainment Status of CNMI Coastal Waters by Island and CALM Category

Watershed	Seg ID	Category							Total Assessed
		1	2	3	4a	4b	4c	5	
Rota	CN1-C5	11.1						21.3	32.4
Aguigan	CN6	8.2							8.2
Tinian	CN7-11	10.4						24.3	34.7
Saipan	CN12-22		6.3					47.6	53.9
Managaha	CN23							0.6	0.6
Farallon de Medinilla	CN24							4.2	4.2
Anatahan	CN25		17.3						17.3
Sarigan	CN26	6.0							6.0
Guguan	CN27	5.6							5.6
Alamagan	CN28	9.4							9.4
Pagan	CN29			28.2					28.2
Agrihan	CN30	19.3							19.3
Asuncion	CN31	7.0							7.0
Maug	CN32	9.5							9.5
Farallon de Pajaros	CN33	4.2							4.2
Total CNMI miles		90.7	23.6	28.2	0	0	0	98	240.5
TOTAL CNMI COASTAL MILES									240.5

TABLE A-4. 2024 Attainment Status of Saipan and Mañagaha Coastal Waters by CALM Category

Watershed	Seg ID	Category							Total Assessed
		1	2	3	4a	4b	4c	5	
Saipan Watershed Coastal (Miles)									
Kalabera	CN12							4.1	4.1
Talofofo	CN13							5.4	5.4
Kagman	CN14							6.7	6.7
Lao Lao	CN15							1.4	1.4
Dan Dan	CN16		6.3						6.3
Isley (West)	CN17A							1.7	1.7
Isley (East)	CN17B							4.2	4.2
Susupe (North)	CN18A							2.4	2.4
Susupe (South)	CN18B							2.8	2.8
W. Takpochao (North)	CN19A							1.0	1
W. Takpochao (Central)	CN19B							4.4	4.4
W. Takpochao (South)	CN19C							1.9	1.9
Achugao (North)	CN20A							1.9	1.9
Achugao (South)	CN20B							2.4	2.4
As Matuis	CN21							2.2	2.2
Banaderu	CN22							5.1	5.1
Total Saipan Category miles			**6.3**					**47.6**	**53.9**
Managaha Watershed Coastal (Miles)									
Managaha	CN23							0.6	0.6
Total Managaha Category miles								**0.6**	**0.6**
TOTAL SAIPAN AND MANAGAHA COASTAL MILES									**54.5**

TABLE A-5. 2024 Attainment Status of Rota Coastal Waters by CALM Category

Watershed	Seg ID	Category							Total Assessed
		1	2	3	4a	4b	4c	5	
Rota Watershed Coastal (Miles)									
Dugi/Gampapa/Chenchor	CN1	11.1							11.1
Sabana/Talakhaya/Palie	CN2							7.3	7.3
Songsong	CN3							7.9	7.9
Uyulanhulo/Teteto	CN4							3.5	3.5
Chaliat/Talo	CN5							2.6	2.6
Total Rota Category miles		**11.1**						**21.3**	**32.4**
TOTAL ROTA COASTAL MILES									**32.4**

TABLE A-6. 2024 Attainment Status of Aguigan and Tinian Coastal Waters by CALM Category

Watershed	Seg ID	Category							Total Assessed
		1	2	3	4a	4b	4c	5	
Aguigan Watershed Coastal (Miles)									
Aguigan	CN6						8.2		8.2
Total Aguigan Category miles							**8.2**		**8.2**
Tinian Watershed Coastal (Miles)									
Masalok	CN7							3.5	3.5
Carolinas	CN8	10.4							10.4
Makpo	CN9							3.0	3.0
Makpo Harbor	CN9H							1.5	1.5
Puntan Daiplolaanibot	CN10							9.9	9.9
Puntan Tahgong	CN11							6.4	6.4
Total Tinian Category miles		**10.4**						**24.3**	**34.7**
TOTAL AGUIGAN AND TINIAN COASTAL MILES									**42.9**

TABLE A-7. 2024 Attainment Status of Northern Islands Coastal Waters by CALM Category

Watershed	Seg ID	Category							Total Assessed
		1	2	3	4a	4b	4c	5	
***Northern Islands Coastal (Miles)**									
Farallon de Medinilla	CN24							4.2	4.2
Anatahan	CN25		17.3						17.3
Sarigan	CN26	6.0							6.0
Guguan	CN27	5.6							5.6
Alamagan	CN28	9.4							9.4
Pagan	CN29		28.2						28.2
Agrihan	CN30	19.3							19.3
Asuncion	CN31	7.0							7.0
Maug	CN32	9.5							9.5
Farallon de Pajaros	CN33	4.2							4.2
Total Northern Islands Category miles		**61**	**45.5**	**0**				**4.2**	**110.7**
TOTAL NORTHERN ISLANDS COASTAL MILES									**110.7**

Freshwater Streams

The CNMI has **100.5 miles of streams**[3]: 0 miles (0%) fully support all designated uses; 50.2 miles (50%) do not have enough data for a full assessment; 50.3 miles (50%) are impaired.

TABLE A-8. 2024 Attainment Status of CNMI Freshwater Streams by CALM Category

Watershed	Seg ID	Category							Total Assessed
		1	2	3	4a	4b	4c	5	
Saipan Watershed Stream (miles)									
Kalabera	12STR		7.8						
Talofofo	13STR							34.5	
Kagman	14STR		12.2						
Lao Lao	15STR		6.7						
Dan Dan	16STR		0.8						
Isley (West)	17STRA		3.5						
Isley (East)	17STRB		0.3						
Susupe (North)	18STRA		7.0						
Susupe (South)	18STRB		1.4						
W. Takpochao (North)	19STRA		4.7						
W. Takpochao (Central)	196STRB							3.2	
W. Takpochao (South)	19STRC		1.3						
Achugao (North)	20STRA		3.4						
Achugao (South)	20STRB							6.5	
As Matuis	21STR		1.1						
Total Saipan Category (miles)			**50.2**					**44.2**	**94.4**
Rota Watershed Stream (miles)									
Sabana/Talakhaya/Palie	2STR							6.1	
Total Rota Category (miles)								**6.1**	**6.1**
Northern Islands Watershed Stream (miles)									
Anatahan	25STR		?						
Sarigan	26STR	?							
Guguan	27STR	?							
Alamagan	28STR	?							
Pagan	29STR		?						
Agrihan	30STR	?							
Asuncion	31STR	?							
Maug	32STR	?							
Farallon de Pajaros	33STR	?							
Total N.I. Category (miles)		**?**	**?**						**?**
TOTAL CNMI STREAM (miles)			**50.2**					**50.3**	**100.5**

[3] Streams on the Northern Islands have not been mapped and are not included in this total.

Wetlands

The CNMI has 716.2 acres of wetlands: 58.6 acres (8%) fully support all designated uses; 55.4 acres (8%) do not have enough data for a full assessment; 568.4 acres (79%) are impaired, and 33.8 acres (5%) are unassessed.

Table A-9 provides attainment status by island and waterbody segment (i.e., watershed) using EPA's Consolidated Assessment and Listing Methodology (CALM) rating nomenclature, as described in **Table A-1** above.

TABLE A-9. 2024 Attainment Status of CNMI Wetlands by CALM Category

Watershed	Seg ID	Category							Total Assessed
		1	2	3	4a	4b	4c	5	
Saipan Watershed Wetland (acres)									
Talofofo	**13WET**						2.6		
Kagman	**14WET**	5.1							
Dan Dan	**16WET**						2.8		
Isley (West)	**17WETA**						26.4		
Isley (East)	**17WETB**						2.0		
Susupe (North)	**18WETA**						197.3		
Susupe (South)	**18WETB**						292.4		
W. Takpochao (North)	**19WETA**						20.2		
W. Takpochao (Central)	**19WETB**						20.5		
Achugao (North)	**20WETA**						12.9		
Achugao (South)	**20WETB**						25.1		
Total Saipan Category (miles)		**5.1**		**0**			**568.4**		**573.5**
Tinian Watershed Wetland (acres)									
Makpo	**9WET**			28.4					
Puntan Diaplolamanibot	**10WET**	12.9							
Puntan Tahgong	**11WET**	40.6							
Total Tinian Category (miles)		**53.5**		**28.4**					**81.9**
Northern Islands Watershed Wetland (acres)									
Pagan	**29WET**			27.0					
Total N.I. Category (miles)				**27.0**					**27.0**
		58.6	0	55.4	0	0	568.4	0	**682.4**

Lakes

The CNMI has **267.4 acres of lakes**[4]: 0 acres (%) fully support all designated uses; 210.0 acres (79%) do not have enough data for a full assessment; 57.4 acres (21%) are impaired.

TABLE A-10. 2024 Attainment Status of CNMI Lakes by CALM Category

Watershed	Seg ID	Category							Total Assessed (Acres)
		1	2	3	4a	4b	4c	5	
Saipan Watershed Lake (Acres)									
Susupe (South)	**CN18LAKB**							57.4	57.4
Total Saipan Lake Category acres								**57.4**	**57.4**
Northern Islands' Lake (Acres)									
Anatahan (Hagoi Haya)	**CN25LAKA**			149.0					149.0
Anatahan (Hagoi Lagu)	**CN25LAKB**		?	?					?
Pagan (Lagona Sanhiyong)	**CN29LAKA**			34.0					34.0
Pagan (Sanhalom)	**CN29LAKB**			27.0					27.0
Total N.I. Lake Category acres			**?**	**210.0**					**210.0**
TOTAL CNMI LAKES (ACRES)			**?**	**210**				**57.4**	**267.4**

A.3. Key Findings of the 2022-2024 Cycle

- Water quality trends remain generally stable compared to the 2022 reporting cycle, which had shown improvements relative to 2015–2019 conditions.
- **12.3 coastal miles** were removed from the 303(d) list for nitrate exceedances, likely reflecting a reduction in wastewater and land-based pollutant loading as a result of decreases in population and tourism.
- **12.9 miles on Tinian and 19.2 miles on Saipan** were removed from the 303(d) list for pH impairments; these changes reflect the correction of equipment calibration issues rather than new water quality improvements.
- **Four new stream systems** were surveyed using the Stream Visual Assessment Protocol (SVAP): Kannat Fananganan and Kannat Falipe (Central West Takpochau), Kannat Taddong Rapugao (North West Takpochau), and Kannat Taddong Mahettok (South Achugao). These assessments found high aquatic life support in upper watershed reaches, but did not affect their listing as impairment continues in their lower, highly urbanized channels. Full results are presented in **Appendix V** (new for this cycle).

[4] Lake Hagoi Lagu on the island of Anatahan has not been mapped and is not included in this size estimate.

A.4. Primary Causes and Sources of Impairments

Water quality impairments are linked to both pollutants and non-pollutant stressors.

- **Pollutant-related impairments:** Most commonly Enterococci bacteria, nutrients (nitrate, orthophosphate), and heavy metals (notably mercury in fish tissue).
- **Non-pollutant stressors:** Hydrologic alterations to wetlands (e.g., fill for development and roadways), habitat modification, invasive species, and reduced aquatic life support functions.
- **Key sources:** Large areas of unsewered development, deteriorating sewer systems in some areas, inadequate restroom facilities at tourist attractions, unregulated or poorly managed animal pens, stormwater runoff carrying sediment and naturally occurring bacteria, and legacy WWII debris.

  In some remote locations, exceedances may reflect naturally occurring Enterococci in tropical soils rather than true fecal contamination; these still trigger advisories but may not indicate direct human health risks.

A.5. Management Responses and Ongoing Efforts

Implementation of the EPA-approved 2018 Bacteriological TMDL continues to guide investment in wastewater and stormwater infrastructure improvements on Saipan. BECQ collaborates closely with the U.S. Environmental Protection Agency, the Commonwealth Utilities Corporation (CUC), the Department of Public Works (DPW), and other natural resource agencies to advance water quality protection and restoration projects. These efforts target primary sources of contamination and support long-term improvements in both public health and environmental quality.

A.6. Looking Forward

BECQ will continue to refine and expand its monitoring programs to address data gaps, particularly in CNMI's freshwater streams and the Northern Islands. Additional fish tissue sampling for heavy metals, PCBs, and PFAS will begin with the 2025 NCCA Reef Flat Monitoring effort, which will support development of a metals TMDL if warranted. Implementation of ongoing bacteriological TMDL-related projects, including wastewater system upgrades and watershed management measures, will remain a priority.

Taken together, these efforts reflect the broader direction of the 2024 Integrated Report: a more concise and streamlined assessment of CNMI's waters that still meets federal requirements. This cycle documents real progress in addressing legacy impairments, strengthens consistency with EPA guidance, and provides a clear framework for future management. Moving forward, CNMI will continue working closely with USEPA, regional partners, and local agencies to advance monitoring, develop TMDLs where needed, and implement watershed-based strategies that protect both public health and the islands' natural resources.

A.7. Antidegradation Policy Implementation

BECQ has removed the pre-assigned antidegradation Tier listings included in the 2022 Integrated Report. In consultation with EPA Region 9, BECQ determined that the 2021 change which implemented Tier 3 (Outstanding National Resource Water, ONRW) assignments through the Integrated Report was in error. Under that approach, some waters were automatically classified as Tier 3 when data were insufficient to determine use support, while others were designated Tier 3 without a transparent or participatory process. Both practices were inconsistent with EPA guidance and with BECQ's longstanding position outlined in the 2004 WQS Response to Public Comments.

BECQ intends to correct this issue through amendments to the CNMI Water Quality Standards planned for 2026. Tier 3 designations will instead be determined through a public nomination and approval process, consistent with practices in other jurisdictions and ensuring transparency and community participation. This change is critical because Tier 3 status can impose significant restrictions on existing and future development. For example, in the 2022 report, the designation effectively restricted development activities in watersheds such as Kagman and Capitol Hill on Saipan, despite the absence of data confirming ONRW status for the streams in those areas.

In addition, the 2022 report inappropriately pre-assigned Tier 1 and Tier 2 designations. These tiers are not intended to function as zoning or land-use restrictions but must be applied case-by-case based on existing water quality conditions. Future reports will return to the proper practice of determining Tier 1 or Tier 2 status solely from available water quality data, rather than categorical or blanket assignments.

B. Background Information & Maps

B.1. Geographic and Demographic Context

The Commonwealth of the Northern Mariana Islands (CNMI) includes the high-population southern limestone islands (Saipan, Tinian, Rota) and a chain of sparsely inhabited volcanic Northern Islands. Roughly 90% of CNMI residents live on Saipan; monitoring and management attention understandably concentrate there, while data for Rota, Tinian, and the Northern Islands remain comparatively limited.

Northern Islands waters around Uracas (Farallon de Pajaros), Maug, and Asuncion lie within the Marianas Trench Marine National Monument, yet also fall inside Department of War training/testing areas, and Farallon de Medinilla (FDM) continues to serve as a bombing range. CNMI agencies have flagged the need for mitigation and routine monitoring to track cumulative effects.

B.2 Coastal and Marine Waters

Figures B-1 through B-4 show the distribution of Class A and Class AA marine waters across the southern islands. These maps provide a geographic reference for the monitoring sites described below and illustrate how water quality classifications align with land use, infrastructure, and recreational intensity.

Use and monitoring intensity are highest along Saipan's west coast, where recreation, tourism, and infrastructure are most concentrated. DEQ samples 38 west-side BEACH sites weekly, while Saipan's east beaches, Managaha islet, and the islands of Rota and Tinian are monitored on a rotating schedule to balance seasonal coverage with limited staff capacity.

Outside Saipan, monitoring density is intentionally lean: Rota has 13 BEACH sites and 10 reef biological monitoring sites; and Tinian has 11 BEACH sites and 6 reef sites. The Northern Islands currently lack permanent stations and are assessed only during opportunistic survey visits.

Marine waters are classified as either **Class AA** or **Class A** under CNMI's Water Quality Standards. Class AA waters represent the vast majority of CNMI marine areas and are managed to maintain a higher level of water quality consistent with their pristine condition and multiple recreational and ecological uses. Class A waters occur in more industrialized areas—such as Saipan's Puerto Rico industrial zone, the Agingan Point outfall, the harbors of Rota and Tinian, and the waters surrounding Farallon de Medinilla (FDM)—and are managed to protect designated uses appropriate for those settings. The specific Clean Water Act designated uses authorized in each classification are described in Section C.2.1.

FIGURE B-1. Saipan Class A Waters within the Puerto Rico Industrial Zone

FIGURE B-2. Saipan Class A Waters Surrounding the Agingan Point WWTP Outfall

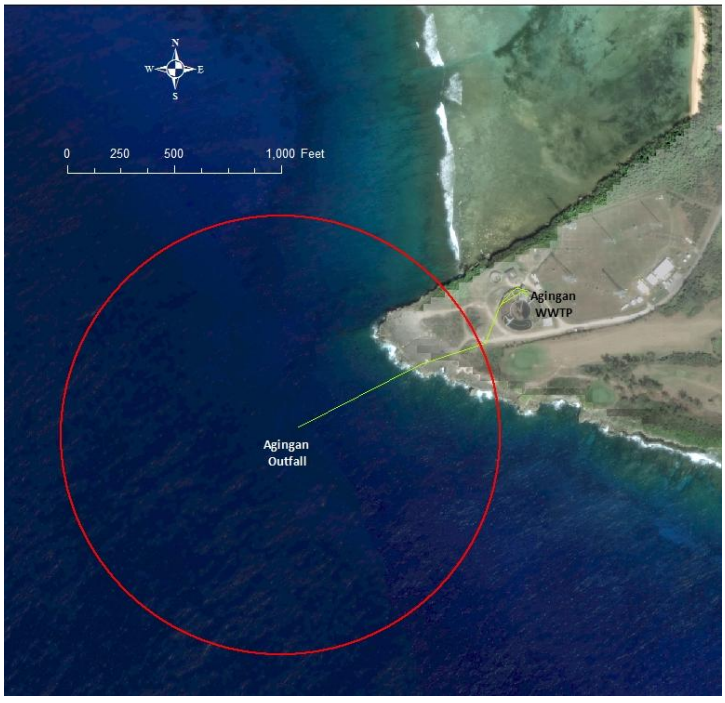


FIGURE B-3. Tinian Class A Waters of San Jose Harbor

FIGURE B-4. Rota Class A Waters of East and West Harbor

B.3 Freshwater Resources: Streams, Wetlands, Lakes

Most CNMI streams are intermittent or ephemeral; perennial flow is limited. Since adoption of the **Stream Visual Assessment Protocol (SVAP)**, CNMI augments sparse grab-sample datasets with rapid habitat/biological indicators to characterize stream health. Recent SVAP work in the West Takpochau and Achugao systems confirmed high aquatic-life support in upper natural channels, while urbanized lower channels remain impaired for other uses.

Wetlands comprise a small share of land area but are hydrologically and ecologically significant. Field teams apply a **Wetland Rapid Assessment Method (RAM)** and coordinate wetland delineations with the BECQ Division of Coastal Resources Management (DCRM) to inform assessments and permitting.

Lakes are few and not managed as potable supplies. Monitoring emphasis remains on protecting recreation, aquatic life, and aesthetics, with assessments summarized in Section C tables.

B.4 Key Stressors and Emerging Concerns

Wastewater & On-site Systems. Legacy septic systems, illicit connections to storm drains, and localized sewer failures contribute Enterococci and nutrients, particularly along developed shorelines. Source tracking and enforcement actions are coordinated with CUC and BECQ-DEQ's Wastewater, Earthmoving and Erosion Control (WEEC) program; nitrogen isotope work has identified shoreline hotspots consistent with wastewater influence.

Stormwater, Roads, & Erosion. Unpaved coral roads and construction runoff drive sediment-laden flows during wet season; BMP retrofits and roadway reconstructions have shown measurable benefits where implemented (e.g., Cross-Island and Lo Lao Bay Low-Water Crossings projects).

Legacy Debris & Metals. WWII remnants and industrial legacies contribute localized heavy-metal concerns in some watersheds; fish/biota data gaps persist for certain freshwater reaches.

Monitoring Gaps. Nutrient datasets remain relatively small at many sites; Northern Islands sampling is episodic and opportunistic. These gaps shape confidence levels and priorities for added fieldwork.

Military Use & Remote Islands. Increased training footprints and renewed homesteading interest elevate the importance of establishing Northern Islands baselines and long-term trend monitoring to manage cumulative impacts.

B.5 Programs, Partnerships, and Regulatory Foundations

WQS/NPS Program implements CNMI Water Quality Standards, runs BEACH notifications, compiles the Integrated Report, and leads SVAP/RAM and watershed investigations in coordination with WEEC and DCRM.

Section 401 Water Quality Certification applies to federal permits with potential discharges (e.g., NPDES, Section 404/10), aligning projects to WQS and watershed protections.

Marine Monitoring Team (MMT) conducts long-term reef and seagrass monitoring and participates in probabilistic reef-flat surveys (EMAP/NCCA), providing biological context beyond discrete water samples.

Safe Drinking Water (SDW) Program regulates public water systems, wells, and injection controls (Class V only), including groundwater management zones on Saipan.

Wastewater, Earthmoving and Erosion Control (WEEC) Program regulates on-site wastewater disposal, construction erosion control for all construction, and post-construction stormwater qualify controls for new development.

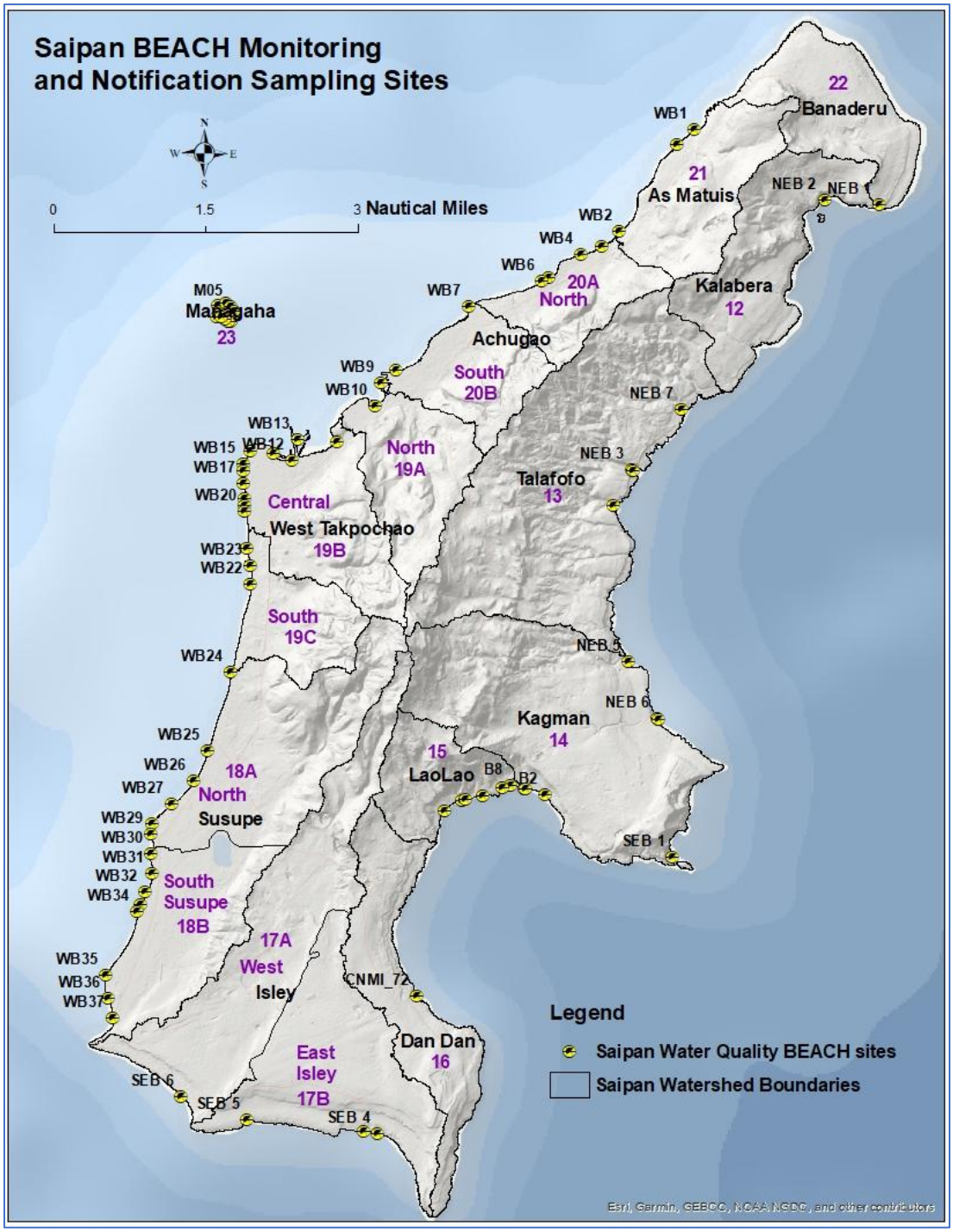
Integrated Watershed Management builds on the 303(d) list to prioritize TMDLs, remediation, and restoration through IWMPs (e.g., Achugao, Garapan, LaoLao, Talakhaya).

B.6 How to Use the Maps

The following figures locate BEACH, biological, stream, wetland, and lake monitoring sites as referenced in the island-wide results in Section C. Because monitoring frequencies and methods differ by island and waterbody type, readers should interpret mapped sites alongside the **Assessment Methodology** (Section C.2) and the **2024 summary tables** (Section A) for CALM categories and attainment status.

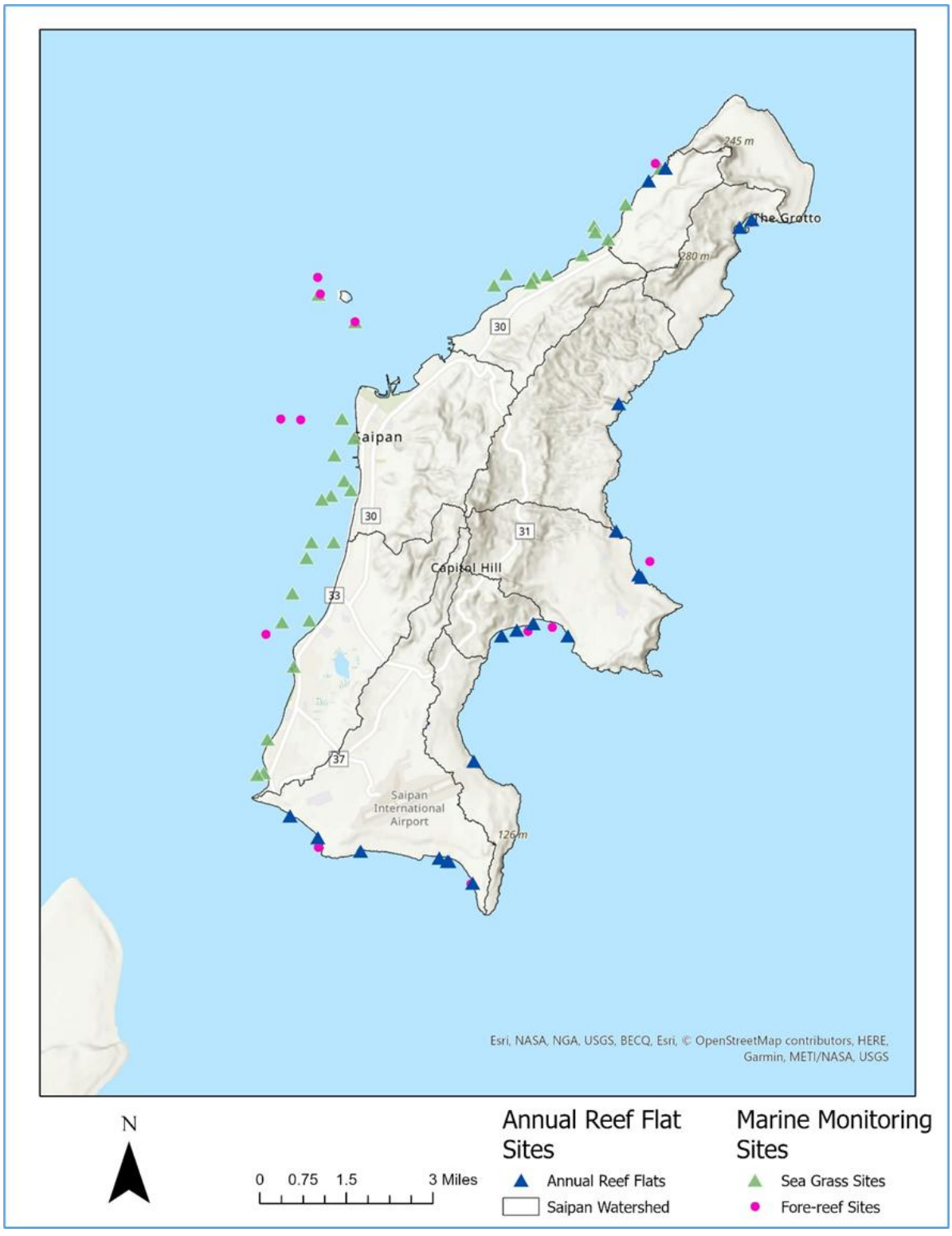
Figure B-5 shows the 58 long-term coastal water quality BEACH monitoring and notification sites surrounding Saipan, and 11 surrounding Mañagaha.

FIGURE B-5 - Saipan BEACH Notification Sites



There are additional lagoon, seagrass, and reef biological criteria monitoring sites that are used to determine if Saipan's coastal waters support the *Propagation of Aquatic Life* DUs. (Figure B-6)

FIGURE B-6 - Saipan Seagrass, Forereef, and Reef Flat Biological Criteria Monitoring Sites

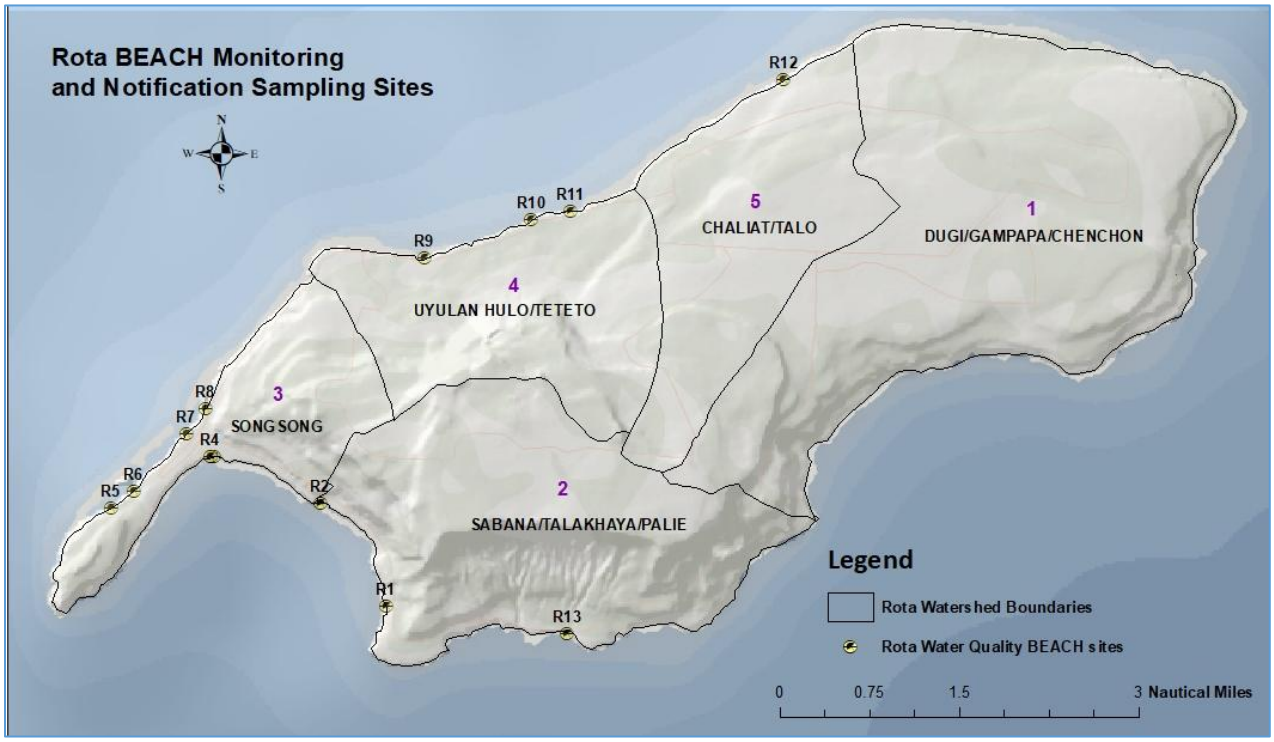


There are 11 long-term BEACH monitoring sites surrounding Mañagaha's shoreline and pier (Figure B-7)

FIGURE B-7- Mañagaha (Segment 23)

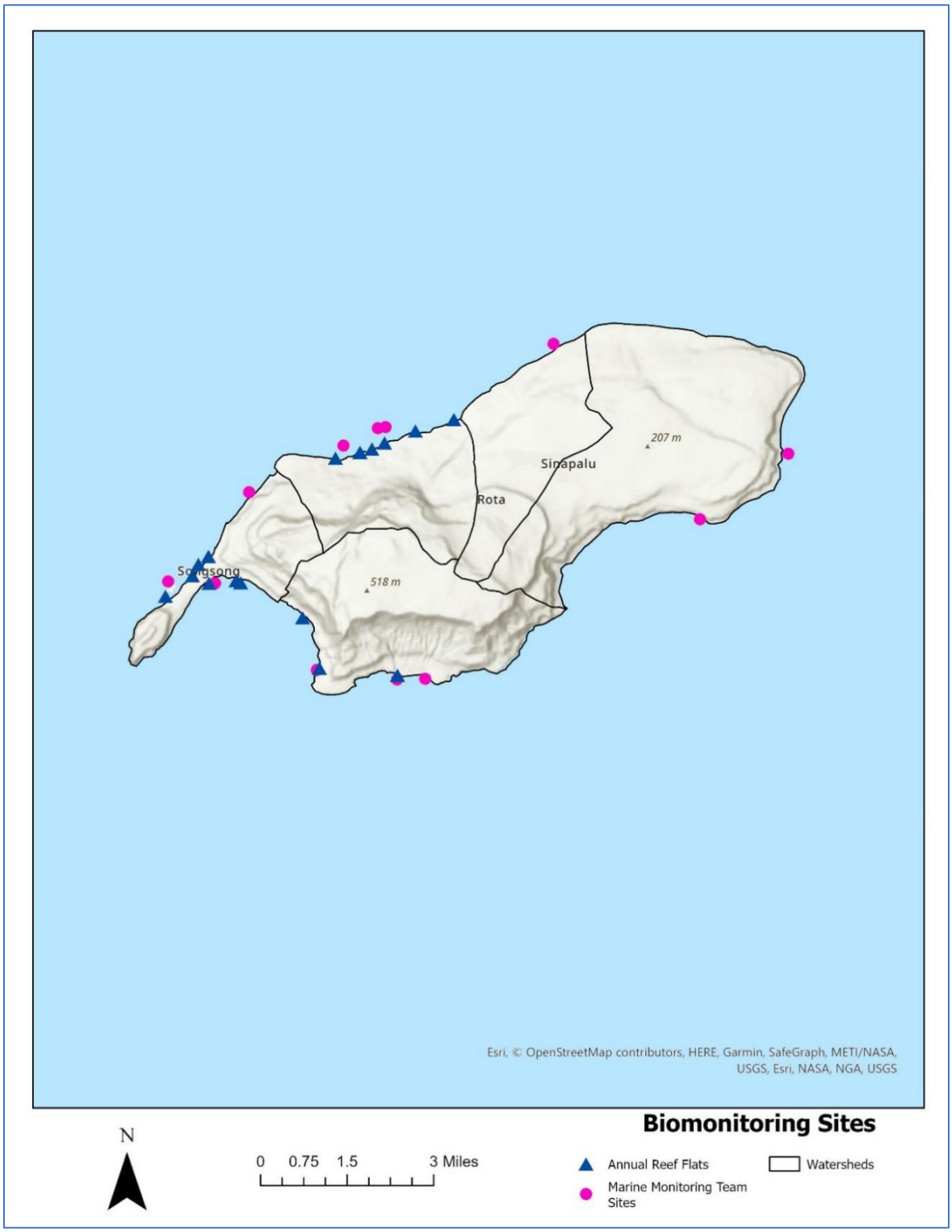
Rota is split into five (5) watersheds, with 12 regularly monitored BEACH sites. (Figure B-8)

FIGURE B-8 - Rota's BEACH Water Quality Monitoring and Notification Sites



In addition, there are 28 biological criteria monitoring reef sites for Rota. These are assessed annually by the MMT and WQS/NPS staff (Figure B-9).

FIGURE B-9- Rota Reef Biological Criteria Monitoring Sites

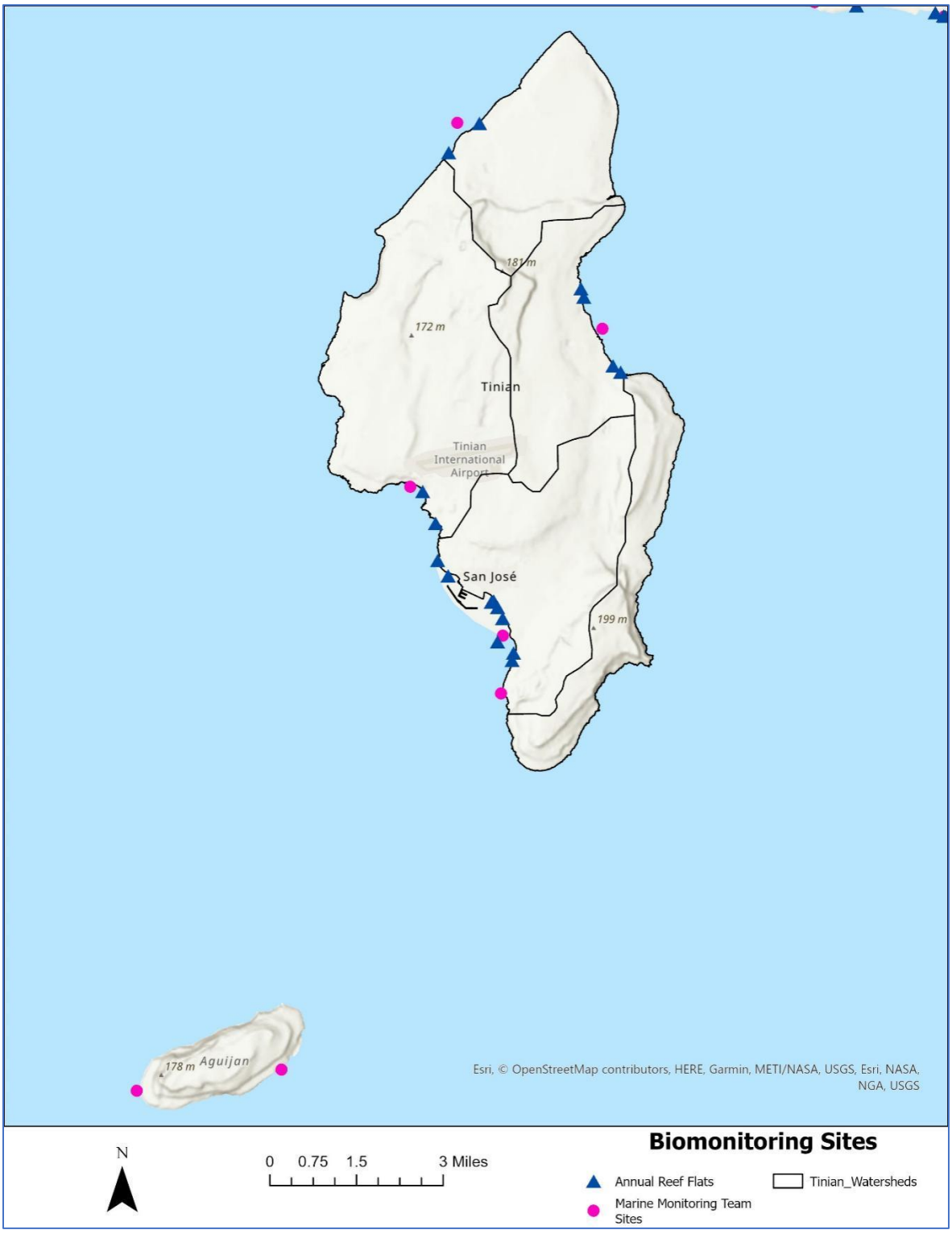


Similar for Rota, there are only limited water quality data for Tinian's coastal waters taken from 10 long-term BEACH monitoring sites (Figure B-10).

FIGURE B-10- Tinian BEACH Water Quality Sites

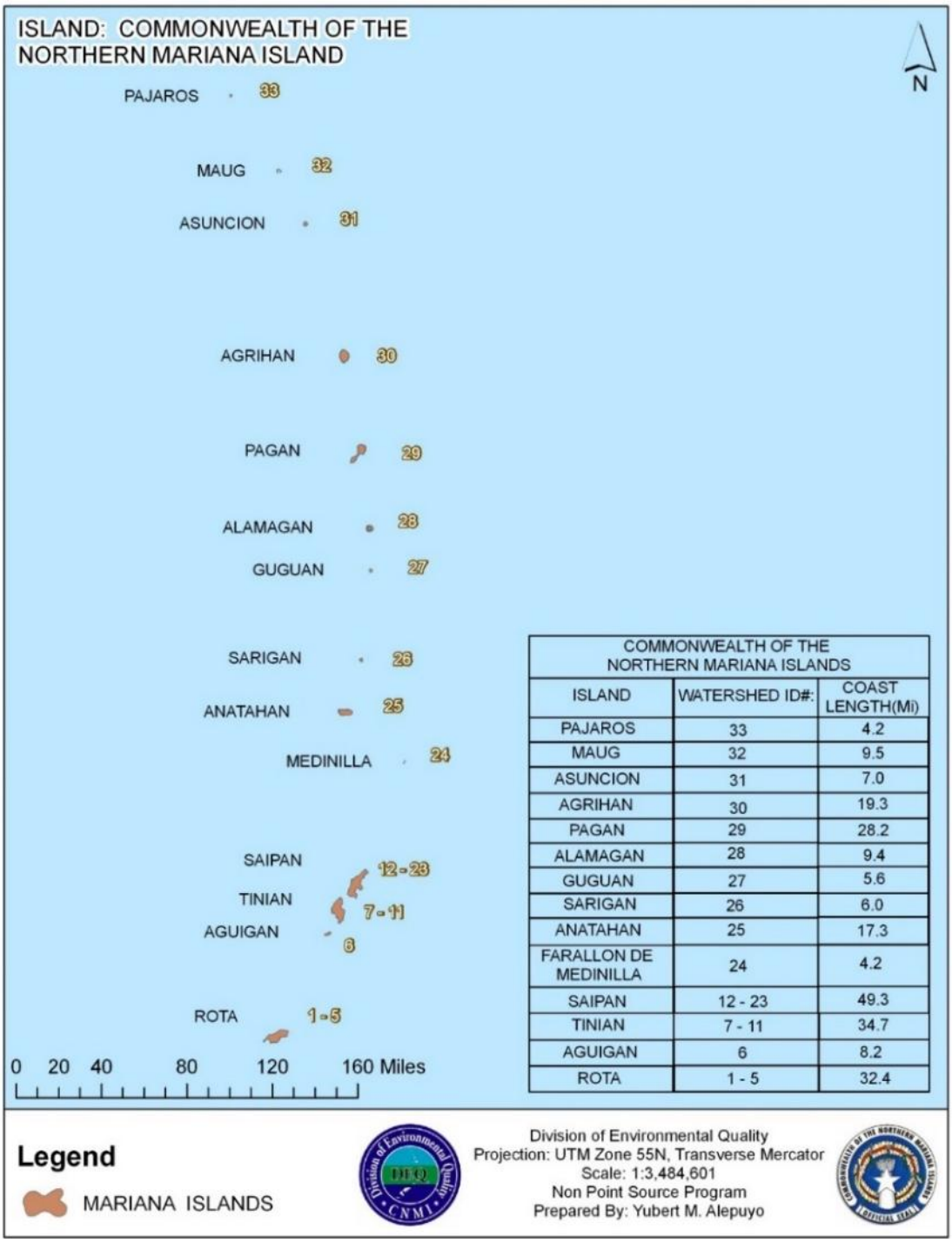
Tinian also has 21 long-term biological monitoring reef sites around Tinian and two around Aguigan. (Figure B-11).

FIGURE B-11- Tinian Reef Biological Criteria Monitoring Sites



There are no permanent monitoring sites in the Northern Islands of the CNMI, north of Saipan. Watershed-based water body segments have also not been established for the Northern Islands, due to the lack of monitoring, and each island is instead assessed as a single waterbody as numbered in Figure B-12.

FIGURE B-12- Northern Islands of the CNMI - waterbody numbering



COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS		
ISLAND	WATERSHED ID#:	COAST LENGTH(Mi)
PAJAROS	33	4.2
MAUG	32	9.5
ASUNCION	31	7.0
AGRIHAN	30	19.3
PAGAN	29	28.2
ALAMAGAN	28	9.4
GUGUAN	27	5.6
SARIGAN	26	6.0
ANATAHAN	25	17.3
FARALLON DE MEDINILLA	24	4.2
SAIPAN	12 - 23	49.3
TINIAN	7 - 11	34.7
AGUIGAN	6	8.2
ROTA	1 - 5	32.4

C. Surface Water Monitoring Assessment

This section contains the Clean Water Act Section 303(d) list of impaired waters (contained in Section C.3.) and the Section 305(b) assessment of all CNMI waters (in Section C.4.). To provide an explanation of the data and methods used to develop these two lists, Section C.1. describe the CNMI's water quality monitoring programs and other sources of data utilized in the prepration of this report, and Section C.2. describes the specific methods by which this data is analyzed to assess attainment status for each individual waterbody.

C.1. MONITORING PROGRAMS AND DATA SOURCES

BECQ maintains multiple monitoring programs that together provide a holistic view of waterbody health: Safe Drinking Water Quality, Marine & Surface Water Quality, Biological Criteria, Wetland Rapid Assessment Method (RAM), and Stream Visual Assessment Protocol (SVAP). Findings from these programs are integrated to evaluate attainment of designated uses.

As part of each biennial reporting cycle, BECQ also solicits recent studies and datasets from partner agencies, researchers, and the public via a published call for data (social media, direct outreach to agencies and institutions, and the water quality listserv at cnmi.waterquality@gmail.com). For this cycle, the call for data was announced on March 4, 2024, with a requested submission date of April 15, 2024.

C.1.1. Coastal Marine Water Quality Monitoring and Notification

The Water Quality Standards/Nonpoint Source (WQS/NPS) Program, supported by BEACH Act funding, conducts routine marine water quality monitoring and issues public notifications when standards are exceeded. Maps of long-term BEACH sites and biological monitoring stations for Saipan, Mañagaha, Rota, and Tinian are provided in Section B.

Sampling frequency is tailored to site use and logistics:

- **Saipan's west coast** (38 high-use BEACH sites) is sampled weekly.
- **Saipan's east coast** has 12 sites, monitored on an 8-week rotation with Rota's 12 sites. The Grotto is sampled weekly due to high visitation.
- **Tinian (10 sites)** and **Mañagaha (11 sites)** alternate with Saipan east/Rota sites, each sampled weekly during their cycle and monthly otherwise.

This rotation ensures that all sites are monitored across seasons while balancing staff, boat transport, and budget constraints.

Samples are processed by the BECQ Environmental Surveillance Laboratory, which operates under a Laboratory Quality Assurance Program Plan (QAPP). The QAPP includes Standard Operating Procedures (SOPs) and quality controls to ensure data validity, accuracy, and defensibility.

Parameters monitored include **Enterococci and E. coli** (MPN/100 mL), **salinity, dissolved oxygen, temperature, pH, turbidity, orthophosphate, nitrate**, and **total suspended solids (TSS)**. The lab currently analyzes orthophosphate (PO_4) and nitrate (NO_3-N) using EPA Method 353.2 (Flow Injection Analyzer) and is seeking EPA certification for additional nutrients (ammonia, total phosphorus, and total nitrogen) by the next reporting cycle.

C.1.2. Marine Biological Criteria Monitoring Program

To supplement water chemistry monitoring, BECQ evaluates ecological condition through long-term surveys of benthic communities. The BECQ's **Marine Monitoring Team (MMT)** collects biological data on reef flats, reef slopes, seagrass beds, lagoons, and harbors, and integrates these findings with water quality results to assess support for the **Propagation of Aquatic Life** designated use (DU).

CNMI also contributes to EPA's **National Coastal Condition Assessment (NCCA)**, which uses probabilistic site selection to provide regionally comparable data across Pacific territories. At each site, water quality parameters (e.g., pH, temperature, dissolved oxygen, salinity, turbidity, nutrients, suspended solids, and Enterococci) are measured alongside reef community composition using the **Aquatic Life Use Support (ALUS)** method (see Section C.2.3.1). Surveys were conducted most recently in 2015, 2020, with supplementary data collected at some NCCA reef flat sites during this reporting cycle (FY22–FY23).

These biological monitoring results provide a cost-effective, scientifically defensible way to detect ecological change, guide management decisions, and complement traditional water quality programs.

C.1.3. Freshwater Streams and Lakes Monitoring Program

BECQ monitors **streams and inland lakes** to evaluate recreational safety, aquatic life support, and overall ecological health. Monitoring is challenging because most CNMI streams are intermittent or ephemeral, flowing mainly during the rainy season (July–October). To address these conditions, BECQ applies the **Stream Visual Assessment Protocol (SVAP)**, first adapted for the CNMI in 2018 and refined in 2020, which allows for evaluation of both flowing and dry streambeds using biological and habitat indicators.

Susupe Lake remains the primary lake assessed, while crater lakes on Pagan and Anatahan are surveyed opportunistically when access is possible. Together, stream and lake monitoring provide a freshwater counterpart to CNMI's coastal programs, ensuring that inland surface waters are consistently represented in the Integrated Report.

C.1.4. Other Data Sources Used for Assessment

EPA guidance requires that all credible data sources be considered in Integrated Reports. In addition to BECQ's core monitoring programs, data from partner agencies, academic studies, and national surveys were reviewed and incorporated where appropriate. Key sources include:

- **University of Guam – WERI:** fish tissue and biota contaminant studies.
- **University of Guam Marine Lab (Houk):** coral reef health and resiliency assessments.
- **American University (Kim, 2020):** pilot radio isotope study.
- **NOAA AOML (Sinigalliano et al.):** microbial source tracking (qPCR) for land-based pollution.
- **NOAA Coral Reef Ecosystem Division (CRED):** Northern Islands biological monitoring.
- **Local watershed sites:** six additional stations in LaoLao Bay and several reef flat sites.
- **DLNR/DFW (2008):** aquatic survey of Saipan streams, used alongside current WQS/NPS SVAP data.

Only data meeting quality assurance standards are considered; erroneous data are excluded from WQX submissions and assessments.

For the **fish and shellfish consumption designated use**, previous WERI studies were used but were limited in coverage and in species relevant to local diets. Substantially improved data will become available beginning with the **2025 NCCA Reef Flat survey**, which includes food fish tissue analysis at 50 Saipan sites for PCBs, PFAS, and mercury.

C.2. ASSESSMENT METHODOLOGY

Designated use (DU) attainment for CNMI waters is evaluated using a combination of water quality monitoring data, biological assessments, field surveys, and other scientifically defensible information. Each waterbody segment is assessed against the numeric and narrative criteria that apply to its class of waters (e.g., coastal, freshwater streams, wetlands, lakes), as defined in CNMI's Water Quality Standards (WQS) and consistent with EPA's Consolidated Assessment and Listing Methodology (CALM).

In addition to water chemistry and bacteriological sampling, CNMI incorporates biological monitoring programs such as the Marine Monitoring Team (MMT), Stream Visual Assessment Protocol (SVAP), and Wetland Rapid Assessment Method (RAM). These programs evaluate benthic community composition, stream habitat condition, and wetland function to provide a broader picture of ecological health and designated use support.

Aesthetic Enjoyment and other designated uses are assessed consistently across all waterbody types using CNMI's narrative WQS (e.g., absence of floating debris, oil, scum, objectionable deposits, or excessive turbidity/solids). In line with EPA CALM guidance, short-term natural events (e.g., storms, floods, algal blooms) are considered episodic and do not constitute non-attainment unless persistent, recurring, or clearly linked to human activities.

C.2.1. CNMI Designated Uses and Water Quality Criteria

The CNMI Water Quality Standards (WQS) define **designated uses (DUs)** that align with the Clean Water Act goal of keeping waters "fishable and swimmable," though the terminology differs slightly. Table C-1 compares CNMI DU terminology with the corresponding Clean Water Act categories.

Water quality **criteria** are established for each water class to determine whether designated uses are being attained. These criteria include bacteriological, chemical, and physical parameters, with thresholds based on EPA National Recommended Water Quality Criteria (NRWQC). Table C-2 summarizes the criteria currently applied to CNMI coastal and surface waters.

TABLE C-1- Comparison of Clean Water Act and CNMI Water Quality Standards Designated Use Terminology (2021 Update)

DU Categories Used in this Report	DUs Defined in CNMI Water Quality Standards	
COASTAL WATERS	**Class AA**	**Class A**
Propagation of Aquatic Life	"to support the propagation of aquatic life", and "conservation of coral reefs and wilderness areas"	"the protection and propagation of aquatic life"
Fish Consumption	"fish and shellfish consumption"	"fish and shellfish consumption"
Recreation	"primary contact recreation in and on the water without risk to human health"	"primary contact recreation in and on the water without risk to human health"
Aesthetic Enjoyment/Others	"aesthetic enjoyment" , and "oceanographic research"	"aesthetic enjoyment"
FRESH WATERS	**Class 1**	**Class 2**
Propagation of Aquatic Life	"The support and propagation of aquatic life"	(not applicable – no class 2 waters in CNMI)
Fish Consumption	"fish and shellfish consumption"	(not applicable – no class 2 waters in CNMI)
Recreation	"primary contact recreation in and on the water without risk to human health"	(not applicable – no class 2 waters in CNMI)
Potable Water Supply	"domestic water supplies" and "food processing"	(not applicable – no class 2 waters in CNMI)
Aesthetic Enjoyment/Others	"aesthetic enjoyment" and "groundwater recharge"	(not applicable – no class 2 waters in CNMI)
WETLANDS	**Class 1**	**Class 2**
Propagation of Aquatic and Terrestrial Life	"shall be protected against sources of pollution to support the propagation of aquatic life"	(not applicable – no class 2 waters in CNMI)

Note: The Potable Water Supply DU applies only to specific Class 1 freshwaters (not to marine or wetland waters).

TABLE C-2- Water Quality Criteria for CNMI Coastal and Fresh Surface Waters

2021 CNMI Water Quality Standards (not including EPA disapprovals)			
PARAMETER	**Marine Class AA waters**	**Marine Class A waters**	**Fresh Class 1 waters**
MICROBIOLOGICAL			
Enterococci *STV	130 MPN/100 ml	130 MPN/100 ml	
Enterococci **GM	35 MPN/100 ml	35 MPN/100 ml	
E. Coli STV			410 MPN/100 ml
E. Coli GM			126 MPN/100 ml
PHYSICAL			
Temperature C	<± 1.0 C from ambient	<± 1.0 C from ambient	<± 1.0 C from ambient
Salinity (ppt)	<± 10% from ambient	<± 10% from ambient	<± 20% from ambient
Dissolved Oxygen (DO%)	≥ 75%, When ambient conditions are <75%, there shall be no worsening of water quality from ambient conditions.	≥ 75%, When ambient conditions are <75%, there shall be no worsening of water quality from ambient conditions.	≥ 75%, When ambient conditions are <75%, there shall be no worsening of water quality from ambient conditions.
pH [1]	pH shall not deviate more than 0.5 units from a value of 8.1; no lower than 7.6 or higher than 8.6	pH shall not deviate more than 0.5 units from a value of 8.1; no lower than 7.6 or higher than 8.6	pH shall not deviate more than 0.5 from ambient conditions and shall not be lower than 6.5 nor higher than 8.5.
Turbidity (NTU)	≤0.5 NTU over ambient	≤1.0 NTU over ambient	≤0.5 NTU over ambient
Total filterable Suspended Solids (TSS)	≤5 mg/l, When ambient conditions exceed this criteria, there shall be no worsening of water quality from ambient condtions.	≤40 mg/l, When ambient conditions exceed this criteria, there shall be no worsening of water quality from ambient condtions.	≤5 mg/l, When ambient conditions exceed this criteria, there shall be no worsening of water quality from ambient condtions.
Total Dissolved Solids (TDS)	N/A	N/A	≤ 500 mg/L, When ambient conditions exceed this criteria, there shall be no worsening of water quality from ambient condtions.
Radioactive material [1]	Discharge of radioactive materials at any level is strictly prohibited.	Discharge of radioactive materials at any level is strictly prohibited.	Discharge of radioactive materials at any level is strictly prohibited.
CHEMICAL			
Orthophosphate (PO_4)	0.025 mg/L	0.05 mg/L	0.10 mg/L
Total Phosphorus	0.025 mg/L	0.05 mg/L	0.10 mg/L
Nitrate-Nitrogen (NO_3 - N)	0.2 mg/L	0.5 mg/L	0.5 mg/L
Total Nitrogen	0.4 mg/L	0.75 mg/L	0.75 mg/L
Ammonia (un-ionized)	0.02 mg/L	0.02 mg/L	0.02 mg/L
Chlorides (mg/L)	N/A	N/A	≤250 mg/L, When ambient conditions exceed this criteria, there shall be no worsening of water quality from ambient condtions.
Sulfates (mg/L)	N/A	N/A	≤250 mg/L, When ambient conditions exceed this criteria, there shall be no worsening of water quality from ambient condtions.
Oil and Petroleum	No visible sheen or deposits, objectionable odor or taste, or injurious to aquatic life	No visible sheen or deposits, objectionable odor or taste, or injurious to aquatic life	No visible sheen or deposits, objectionable odor or taste, or injurious to aquatic life
Toxins	***2018 NRWQC	2018 NRWQC	2018 NRWQC

* Statistical Threshold Value for a single sample.

** Geometric mean over a 30-day period.

*** 2018 US EPA NRWQC.

[1] EPA disapproved the 2021 changes which included reference to ambient conditions; standards reverted to previously approved 2018 version

C.2.2. Criteria for Assessing Attainment of Coastal Marine Designated Uses

Attainment of **designated uses (DUs)** in coastal waterbodies is evaluated using a combination of water quality data, percent exceedances of CNMI Water Quality Standards (WQS), field surveys, biological monitoring results, and other credible studies. Table C-3 summarizes the criteria applied to determine whether each DU is being fully supported, partially supported, or not supported. For the Aesthetic Enjoyment DU, short-term, naturally driven conditions (e.g., storms, floods, algal blooms) are considered episodic and do not indicate non-attainment unless persistent, recurring, or clearly linked to human activities (see Table C-3, footnote). Table C-3 summarizes the criteria used to assess attainment.

TABLE C-3- Criteria Used to Assess Attainment of Coastal Marine Designated Uses

Designated Use	Criteria to Assess Attainment of Designated Uses
Support and Propagation of Aquatic Life	Habitat Suitability: biomonitoring criteria (ALUS) rating of "fair" or "good" for all sites within the segment and other study results
	DO%, PO_4 mg/l, NO_3-N mg/L: No more than 10% of samples exceeding WQS for all sites within the segment
	Ambient water quality criteria is met (where data is available)
	General provisions met: no floating/settleable solids, no more than 10% of pH samples exceed WQS for all sites within the segment, no radioactive substances
Fish and Shellfish Consumption	Fish tissue/biota collected within the segment are to be free of contaminant concentrations exceeding USEPA standards; or very low likelihood ot tissue contamination due to current or historic land use patterns in adjacent watersheds; or lack of edible fish species present.
Recreational Enjoyment	Enterococci or *E. coli* MPN/100ml: No more than 10% of samples result in exceedance of WQS for all sites within the segment
	General provisions met: no floating/settleable solids, no more than 10% of pH samples exceed WQS for all sites within the segment, no radioactive substances
Aesthetic Enjoyment and Other Uses (Oceanographic Research)	Narrative and numeric criteria in CNMI's WQS addressing aesthetic conditions are considered attained when waters are generally free of floating debris, oil, grease, scum, objectionable deposits, undesirable taste/odor/turbidity, and excessive suspended solids (WQS §§65-130-301, 305, 420). Occasional exceedances attributable to short-term natural events (e.g., storms or seasonal algal blooms) do not constitute non-attainment unless they are persistent, recurring, or clearly linked to anthropogenic sources.*
	Oceanographic research is assumed supported unless water quality conditions clearly preclude safe and effective research activities.

** For the Aesthetic Enjoyment DU, assessment follows EPA CALM guidance: short-term natural events (e.g., storms, floods, algal blooms) are considered episodic and do not constitute non-attainment unless persistent, recurring, or clearly linked to human activities.*

C.2.3 Criteria for Assessing Attainment of Freshwater Designated Uses

Attainment of **designated uses (DUs)** in freshwater systems—including streams, lakes, and wetlands—is evaluated using water quality results, field surveys, biological indicators, and other available data. Table C-4 summarizes the criteria applied to determine whether these waters fully support, partially support, or do not support their designated uses.

TABLE C-4. Criteria Used to Assess Attainment of Freshwater Designated Uses

Designated Use	Criteria to Assess Attainment of Designated Uses
Support and Propagation of Aquatic Life	Habitat Suitability: SVAP or Wetland RAM rating of "fair" or "good" for all sites within the segment and other study results
	Ambient water quality criteria is met (where data is available)
	DO%, PO_4 mg/l, NO_3-N mg/L: No more than 10% of samples exceeding WQS for all sites within the segment
	General provisions met: no floating/settleable solids, no more than 10% of pH samples exceed WQS for all sites within the segment, no radioactive substances
Fish and Shellfish Consumption	Fish tissue/biota collected within the segment are to be free of contaminant concentrations exceeding USEPA standards; or very low likelihood ot tissue contamination due to current or historic land use patterns in adjacent watersheds; or lack of edible fish species present.
Recreational Enjoyment	Enterococci or *E. coli* MPN/100ml: No more than 10% of samples result in exceedance of WQS for all sites within the segment
	General provisions met: no floating/settleable solids, no more than 10% of pH samples exceed WQS for all sites within the segment, no radioactive substances
Potable Water Supply	*E. coli* MPN/100ml: No more than 10% of samples result in exceedance of WQS for all sites within the segment
	General provisions met: no floating/settleable solids, no more than 10% of pH samples exceed WQS for all sites within the segment, no radioactive substances
Aesthetic Enjoyment and Other Uses (food processing & groundwater recharge)	Attainment is based on compliance with all applicable numeric water quality criteria in CNMI's WQS (e.g., bacteria, nutrients, pH, DO, turbidity, TSS, and toxic polutants). Narrative criteria addressing aesthetics must also be met, including the absence of floating debris, oil, grease, scum, objectionable deposits, undesirable taste/odor/turbidity, and excessive suspended solids (WQS §§65-130-301, 305, 420). These conditions collectively ensure that waters are suitable for use in food processing and for natural groundwater recharge.

** For the Aesthetic Enjoyment DU, assessment follows EPA CALM guidance: short-term natural events (e.g., storms, floods, algal blooms) are considered episodic and do not constitute non-attainment unless persistent, recurring, or clearly linked to human activities.*

Attainment of the **Propagation of Aquatic Life designated use (DU)** in wetlands is evaluated using the **Rapid Assessment Method (RAM)**, which considers hydrologic, biological, and habitat characteristics. Table C-5 summarizes the RAM ranking approach applied in CNMI wetland assessments.

TABLE C-5. Criteria Used to Assess Attainment of Wetland Designated Uses (RAM Rankings for Propagation of Aquatic Life)

EPA CALM CATEGORY:	DESCRIPTION	CNMI Wetland RAM Rankings of Wetland Functional Values
1	Propagation of Aquatic Life DU is supported, not threatened	All Functions ≥ 0.7
2	Attains some DUs, no DU is threatened, and there is insufficient information to determine if remaining DUs are attained/or impaired	lacking other pertinent data, no potential threats
3	There is insufficient data and/or information to assess all DUs, Potential stressors may cause impairment	lacking other pertinent data, potential threats
4c	Propagation of Aquatic Life not supported, but not by a pollutant, for example hydrological modification, invasive species, low vegetative diversity, etc.	Some functions < 0.7, due to non-pollutant causes
5	Available data/information indicates that the Propagation of Aquatic Life DU is not supported or is threatened, because of a pollutant, and a TMDL is needed	At least 1 function < 0.7 due to a pollutant

C.2.4. Five-Part Consolidated Assessment and Listing Method Categories

The **five EPA-recommended CALM categories** are used in this Integrated Report to classify coastal and freshwater waterbody segments. Categories reflect whether designated uses (DUs) are attained, threatened, or impaired, and whether a Total Maximum Daily Load (TMDL) is required.

Definitions are provided in **Table C-6**, adapted from EPA's *2006 Assessment and Listing Guidance* and *2016 Integrated Reporting Memorandum*. All CNMI waterbody segment have been assigned to one of these categories.

TABLE C-6. EPA CALM Categories Used to Classify CNMI Waterbodies

EPA CALM Category	Description
1 – All uses attained	All designated uses (DUs) are attained; none are threatened. Waters meet all water quality standards (WQS) throughout the entire waterbody.
2 – Some uses attained	Some DUs are attained; no DU is threatened or impaired. Insufficient data exist to determine if the remaining uses are attained (assumed attained unless shown otherwise).
3 – Insufficient data	Data are insufficient to determine if any DUs are attained, threatened, or impaired. There is reasonable potential that one or more uses are not attained.
4 – Impaired, no TMDL required	One or more DUs are impaired or threatened, but a TMDL is not required. Subcategories: • **4a** – TMDL completed • **4b** – Other enforceable controls in place • **4c** – Impairment not caused by a pollutant (e.g., habitat modification, hydrologic alteration, overharvesting)
5 – Impaired, TMDL required	One or more DUs are impaired or threatened due to pollutant(s); a TMDL is required. Subcategory: • **5r** – Advance Restoration Plan (ARP) implemented in lieu of immediate TMDL development.

[1] CWA defines "pollution not caused by a pollutant" as "the man-made or man-induced alteration of the chemical, physical, biological, or radiological integrity of water" (Section 502(19))

[2] An Advance Restoration Plan (ARP) is a plan designed to address impairments for waters that will remain on the CWA 303(d) list (i.e., Category 5), as restoration activities are implemented prior to TMDL development.

C.2.4.1. Category 1 – All uses attained

Waters in this category meet all water quality standards, fully support all designated uses, and none are threatened (see Table C-6).

C.2.4.2. Category 2 – Some uses attained

These waters attain some designated uses, with no impairments or threats identified, but lack sufficient data to confirm attainment of all uses (see Table C-6).

C.2.4.3. Category 3 – Insufficient data

Waters in this category lack adequate data to determine if designated uses are attained. Potential impairment may exist but cannot be confirmed (see Table C-6).

C.2.4.4. Category 4 – Impaired, no TMDL required

These waters are impaired or threatened for one or more designated uses, but a TMDL is not required because a TMDL is complete (4a), other enforceable controls are in place (4b), or the impairment is not caused by a pollutant (4c) (see Table C-6).

C.2.4.5. Category 5 – Impaired, TMDL required

These waters are impaired or threatened due to pollutant(s) and require development of a TMDL. Subcategory 5r applies where an Advance Restoration Plan (ARP) is being implemented (see Table C-6).

C.3. SECTION 303(d) IMPAIRED WATERS LIST AND TMDL STATUS

Section 303(d) of the Clean Water Act requires states and territories to identify waters that are impaired or threatened by pollutants and therefore require development of a **Total Maximum Daily Load (TMDL)**. These waters are classified as **CALM Category 5** and are collectively known as the **303(d) list of impaired waters**. The CNMI's 2024 Integrated Report provides updated information on impaired waters, pollutants and sources of concern, criteria for removing waters from the list, and the schedule and priority ranking for TMDL development.

C.3.1. Section 303(d) List of Impaired Waters

The CWA requires each state and territory to identify waters impaired by pollutant(s) that require a TMDL. CNMI's impaired waters (CALM Category 5) are listed in Tables C-7 through C-10.

TABLE C-7. 2024 Rota Waterbody Segment–Pollutant Combinations on the 303(d) List

Seg ID	Segment Name	Size	Cause Name	Source	Cycle First Listed	Comments
ROTA:						
2	Sabana/Talakaya/ Palie	7.3 miles	Enterococci (215)	Grazing in Riparian or Shoreline zones	2008	
				Groundwater loading		
				On-site Treatment Systems Septic		
				Wet Weather Discharges (NPS)		
			pH	Source unknown	2020	No trend, Aging pH meter is suspect
2STR	Sabana/Talakaya/ Palie Stream	6.1 miles	Enterococci (215)	On-site Treatment Systems Septic	2020	
				Grazing in Riparian or Shoreline zones		
				Wet Weather Discharges		
3	Songsong	7.9 miles	Enterococci (215)	On-site Treatment Systems Septic	2004	
				Wastes from pets		
				Groundwater loading	2022	
			phosphate (340)	Marina Boat Maintenance	2004	In FY2019
			DO%(205)	Groundwater loading	2020	
				Marina Boat Maintenance		
				On-site Treatment Systems Septic		
			pH	Source unknown	2020	No trend, Aging pH meter is suspect
4	Uyulanhulo/Teteto	3.5 miles	Enterococci (215)	Wet Weather Discharges (NPS)	2020	Cannot delist < five years
			pH, Low (490)	Source unknown	2020	Aging pH meter is suspect
5	Chaliat/Talo	2.6 miles	Nitrate (302)	Golf Courses	2020	
				Groundwater loading		
			pH, Low (490)	Source unknown	2020	Aging pH meter is suspect

The items with **bold red fonts** are new causes, or newly listed sources this reporting cycle.
The items in ~~blue strike-through~~ were causes or sources removed from the 303(d) list this cycle.

TABLE C-8. 2024 Tinian and Aguigan Waterbody Segment–Pollutant Combinations on the 303(d) List

Seg ID	Segment Name	Size	Cause Name	Source	Cycle First Listed	Comments
TINIAN:						
7	Masalok	3.5 miles	phosphate (340)	Source unknown	2004	
			Nitrate (302)	Source unknown	2020	
			~~pH~~	~~Source unknown~~	~~2020~~	~~No trend. Aging probe suspect.~~
			Enterococci (215)	Grazing in riparia/shoreline zones	2014	and sample contamination
9	Makpo	3.0 miles	phosphate (340)	Groundwater seeps	2004	New source listed
				On-site Treatment Systems		New source listed
			Nitrate (302)	Groundwater seeps	2020	Few sampling events
				On-site Treatment Systems		Few sampling events
			~~pH, Low (490)~~	~~Source unknown~~	~~2018~~	~~Aging probe suspected.~~
			Enterococci (215)	Groundwater seeps	2022	and sample contamination
				On-site Treatment Systems		and sample contamination
9H	Makpo (Harbor)	1.5 miles	phosphate (340)	Marina Boat Maintenance	2004	
			DO% (205)	Marina Boat Maintenance	2010	
				Groundwater seeps		
				On-site Treatment Systems Septic		New Source listed
			Enterococci (215)	Groundwater seeps	2014	and sample contamination
				On-site Treatment Systems		and sample contamination
				Animal Holding Management Areas		and sample contamination
10	Puntan Diaplolamanibot	9.9 miles	phosphate (340)	Illegal dumps or disposal	2004	
			Nitrate (302)	Illegal dumps or disposal	2020	
			DO% (205)	Illegal dumps or disposal	2022	Microbial aerobic activity
			Enterococci (215)	Illegal dumps or disposal	2020	Waste from pumper truck
				Waste from pets		Roaming dogs
11	Puntan Tahgong	6.4 miles	Enterococci (215)	Source unknown	2020	Few sampling events
			phosphate (340)	Source unknown	2004	
			Nitrate (302)	Source unknown	2020	
			~~pH~~	~~Source unknown~~	~~2020~~	~~No trend. Aging probe suspect.~~

Note: Aguigan has no waterbody segments listed as impaired in this reporting cycle. It is paired with Tinian here for consistency with other CNMI reporting formats.

The items with **bold red fonts** are new causes, or newly listed sources this reporting cycle.
The items in ~~blue strike-through~~ were causes or sources removed from the 303(d) list this cycle.

TABLE C-9. 2024 Saipan and Mañagaha Waterbody Segment–Pollutant Combinations on the 303(d) List

Seg ID	Segment Name	Size	Cause Name	Source	Cycle First Listed	Comments
SAIPAN:						
12	**Kalabera**	**4.1 miles**	Phosphate (340)	Waterfowl	2004	Sea and shore bird guano
			~~Nitrates (302)~~	~~Waterfowl~~	~~2020~~	~~Meets WQS 2022~~
13	**Talofofo**	**5.4 miles**	Phosphate (340)	Golf Courses	2004	
				Grazing in Riparian/ Shorel		
				Waterfowl		
			~~Nitrates (302)~~	~~Golf Courses~~	~~2020~~	~~Meets WQS 2022~~
				~~Grazing in Riparian/Shoreli~~		
				~~Waterfowl~~		
			pH	Source Unknown	2020	
13STR	**Talofofo Stream**	**34.5 miles**	Enterococci (215)	Grazing in Riparian/Shoreli	2018	
				Wet Weather Discharges (N		
14	**Kagman**	**6.7 miles**	Phosphate (340)	Golf Courses	2004	
				Groundwater loading		
				On-site Treatment Systems S		
			Nitrates (302)	Golf Courses	2020	
				Groundwater loading		
				On-site Treatment Systems S		
			~~pH~~	~~Source Unknown~~	~~2020~~	~~meets WQS. Aging probe replaced~~
15	**Lao Lao**	**1.4 miles**	Phosphate (340)	On-site Treatment Systems S	2004	
				Wet Weather Discharges (N		
				Waterfowl		
			Nitrates (302)	On-site Treatment Systems S	2020	
				Wet Weather Discharges (N		
				Waterfowl		
17A	**Isley (West)**	**1.7 miles**	copper (163)	NPS Pollution from Military	2014	
			lead (267)	NPS Pollution from Military	2014	
			Phosphate (340)	Source Unknown	2004	
			~~pH, Low (490)~~	~~Source Unknown~~	~~2020~~	~~Meets WQS. Aging probe replaced~~
17B	**Isley (East)**	**4.2 miles**	Phosphate (340)	Source Unknown	2004	
			~~pH~~	~~Source Unknown~~	~~2020~~	~~Meets WQS. Aging probe replaced~~
18 A	**Susupe (North)**	**2.4 miles**	DO% (205)	Groundwater loading	2010	
				Sanitary Sewer Overflows		
				Urban Runoff/Storm Sewers		
			Phosphate (340)	Groundwater loading	2004	
				Sanitary Sewer Overflows		
				Urban Runoff/Storm Sewers		
			Nitrates (302)	Groundwater loading	2020	
				Sanitary Sewer Overflows		
				Urban Runoff/Storm Sewers		
			pH, Low (490)	Source Unknown	2020	

The items with **bold red fonts** are new causes, or newly listed sources this reporting cycle.
The items in ~~blue strike-through~~ were causes or sources removed from the 303(d) list this cycle.

TABLE C-9. (cont.). 2024 Saipan and Mañagaha Waterbody Segment–Pollutant Combinations on the 303(d) List

Seg ID	Segment Name	Size	Cause Name	Source	Cycle First Listed	Comments
SAIPAN:						
18 B	**Susupe (South)**	**2.8 miles**	DO% (205)	Groundwater loading	2010	
				On-site Treatment Systems		
				Sanitary Sewer Overflows		
				Urban Runoff/Storm Sewers		
			Phosphate (340)	Groundwater loading	2004	
				On-site Treatment Systems		
				Sanitary Sewer Overflows		
				Urban Runoff/Storm Sewers		
			Nitrates (302)	Groundwater loading	2020	
				On-site Treatment Systems		
				Sanitary Sewer Overflows		
				Urban Runoff/Storm Sewers		
			pH	Source Unknown	2020	Meets WQS. Aging probe replaced
18LAK	Susupe (South) Lake	57.4 acres	pH, High (491)	naturally occuring/analysis	2014	
			DO% (205)	Sanitary Sewer Overflows	2010	
				Urban Runoff/Storm Sewers		
				On-site Treatment Systems		
19 A	W. Takpochau (North)	1.0 miles	lead (267)	NPS Pollution from Military	2018	In bivalves
			Phosphate (340)	Commercial Harbor/Port Ac	2004	Meets WQS 2022
				Sanitary Sewer Overflows		
				Urban Runoff/Storm Sewers		
			Nitrates (302)	Commercial Harbor/Port Ac	2020	
				Sanitary Sewer Overflows		
				Urban Runoff/Storm Sewers		
19 B	W. Takpochau (Central)	4.4 miles	~~pH, Low (490)~~	~~Roads, Infrastructure, Cons~~	~~2018~~	~~Meets WQS.~~
				~~Marina Boat Maintenance~~		
			DO% (205)	Groundwater loading	2010	
				Sanitary Sewer Overflows		
				Urban Runoff/Storm Sewers		
			Hg in fish (467)	Impervious surface/ Lot Run	2010	
			Phosphate (340)	Groundwater loading	2004	
				Sanitary Sewer Overflows		
			Nitrates (302)	Groundwater loading	2020	
				Sanitary Sewer Overflows		
			Copper (163)	NPS Pollution from Military	2020	In bivalves
				Releases from Waste site or		
			lead (267)	NPS Pollution from Military	2020	In bivalves
				Releases from Waste site or		

The items with **bold red fonts** are new causes, or newly listed sources this reporting cycle.
The items in ~~blue strike-through~~ were causes or sources removed from the 303(d) list this cycle.

TABLE C-9. (cont.). 2024 Saipan and Mañagaha Waterbody Segment–Pollutant Combinations on the 303(d) List

Seg ID	Segment Name	Size	Cause Name	Source	Cycle First Listed	Comments
SAIPAN:						
19STRB	W. Takpochau (Central) Stream	3.2 miles	Hg in fish (467)	Impervious surface/ Lot Rur	2014	
			Enterococci (215)	Grazing in Riparian/Shoreli	2018	
				Sanitary Sewer Overflows		
				Urban Runoff/Storm Sewers		
				Wet Weather Discharges (N		
19 C	W. Takpochau (South)	1.9 miles	DO% (205)	Groundwater loading	2022	2021 Isotope study
				On-site Treatment Systems S	2008	
				Sanitary Sewer Overflows		
				Urban Runoff/Storm Sewers		
			pH, Low (490)	Roads, Infrastructure, Cons	2016	
				Marina Boat Maintenance		
				Groundwater loading	2022	2021 Isotope study
			Nitrates (302)	On-site Treatment Systems S	2018	
				Sanitary Sewer Overflows		
				Urban Runoff/Storm Sewers		
				Groundwater loading	2022	2021 Isotope study
			Phosphate (340)	On-site Treatment Systems S	2022	
				Sanitary Sewer Overflows		
				Urban Runoff/Storm Sewers		
				Groundwater loading		2021 Isotope study
20 A	Achugao (North)	1.9 miles	DO% (205)	Wet Weather Discharges (N	2022	
			Phosphate (340)	Wet Weather Discharges (N	2022	
20 B	Achugao (South)	2.4 miles	DO% (205)	Grazing in Riparian or Shor	2010	
				On-site Treatment Systems S		
				Sanitary Sewer Overflows		
				Urban Runoff/Storm Sewers		
				Marina Boat Maintenance	2022	
			lead (267)	NPS Pollution from Military	2018	In bivalves
20STRB	Achugao (South) Stream	6.5 miles	lead (267)	NPS Pollution from Military	2018	In bivalves
			Enterococci (215)	Grazing in Riparian or Shor	2018	
				On-site Treatment Systems S		
				Sanitary Sewer Overflows		
				Urban Runoff/Storm Sewers		
21	As Matuis	2.2 miles	Enterococci (215)	Source Unknown	2004	Missing in 2018 Bacteria TMDL
			DO% (205)	Source Unknown	2010	
			~~pH, Low (490)~~	~~Source Unknown~~	~~2018~~	~~Meets WQS, aging probe replaced~~
			Phosphate (340)	Source Unknown	2004	
			~~Nitrates (302)~~	~~Source Unknown~~	~~2020~~	~~Meets WQS 2022~~
22	Banaderu	5.1 miles	Phosphate (340)	Source Unknown	2004	

The items in ~~blue strike-through~~ were causes or sources removed from the 303(d) list this cycle.

TABLE C-9. (cont.). 2024 Saipan and Mañagaha Waterbody Segment–Pollutant Combinations on the 303(d) List

Seg ID	Segment Name	Size	Cause Name	Source	Cycle First Listed	Comments
MANAGAHA:						
23	Managaha	0.6 miles	pH, Low (490)	Marina Boat Maintenance	2018	
			Phosphate (340)	Source Unknown	2020	
			~~Nitrates (302)~~	~~Source Unknown~~	~~2020~~	~~Meets WQS 2022~~

The items in ~~blue strike-through~~ were causes or sources removed from the 303(d) list this cycle.

TABLE C-10. 2024 Northern Islands Waterbody Segment–Pollutant Combinations on the 303(d) List

Seg ID	Segment Name	Size	Cause Name	Source	Cycle First Listed	Comments
NORTHERN ISLANDS:						
24	Farallon de Medinilla (FDM)	4.2 miles	Other	NPS pollution from military exercises	2020	No access for Aesthetic Enjoyment due to safety concerns. Permanently altered topography from bombing exercises.

NOTE: Farallon de Medinilla (FDM) remains listed as impaired for the Aesthetic Enjoyment designated use in this reporting cycle. While BECQ has noted that the original basis for this listing – military access restrictions and alterations to island topography – does not align directly with water quality criteria under CNMI's WQS, further review is warranted. In consultation with EPA Region 9, final delisting consideration will be deferred to the next reporting cycle. Public input on this issue is encouraged and will help guide future assessments.

C.3.2. Criteria for Removal of Water Segment/Pollutant Combinations from the 303(d) List

A waterbody/pollutant combination may be removed from the 303(d) list if:

1. A USEPA-approved TMDL is in place;
2. More recent credible data show attainment of water quality standards (WQS);
3. Historical data are re-evaluated, with greater weight on more recent results (last five years; last two years for BEACH sites);
4. Standards or designated uses (DUs) have changed with EPA approval;
5. Narrative WQS implementation procedures have changed;
6. A deficiency in the original listing analysis is identified; or
7. Natural conditions alone explain the impairment.

A waterbody may only be upgraded from Category 5 if **all pollutants previously listed** have been removed. Table C-10 summarizes the waterbody/pollutant combinations that have been removed from CNMI's 303(d) list in this reporting cycle.

C.3.3. CNMI Waters Removed from the 303(d) List

TABLE C-11. 2024 Segment–Pollutant Combinations Removed from CNMI's 303(d) List

Segment/Pollutant Combination on Previous CNMI 303(d) List					Summary Rationale for Delisting Segment/Pollutant Combinations	
Seg ID	Segment Name	Pollutant	Segment Size	First Listed	*(Identify number of reason)* 1. State determines water quality is being met. 2. Flaws in original listing. 3. Other point or NPS conrols expected to meet WQS. 4. Impairment due to non-pollutant. 5. EPA approval of TMDL. 6. Waterbody not in state's jurisdiction. 7. Other.	
					Reason	Comments
TINIAN:						
7	Masalok	pH	3.5 miles	2020	2	Replaced pH probe. Criteria met 4-5 years
9	Makpo	pH	3.0 miles	2018	2	Replaced pH probe. Criteria met 4-5 years
11	Puntan Tahgong	pH	6.4 miles	2020	2	Replaced pH probe. 4-5 years good data
SAIPAN:						
12	Kalabera	Nitrates	4.1 miles	2020	1	NO3 criteria met for past 4-5 years
13	Talofofo	Nitrates	5.4 miles	2020	1	NO3 criteria met for past 4-5 years
14	Kagman	pH	6.7 miles	2020	2	Replaced pH probe. Criteria met 4-5 years
17A	Isley (West)	pH	1.7 miles	2020	2	Replaced pH probe. Criteria met 4-5 years
17B	Isley (East)	pH	4.2 miles	2020	2	Replaced pH probe. Criteria met 4-5 years
19B	W. Takpochau (Central)	pH	4.4 miles	2018	2	Replaced pH probe. Criteria met 4-5 years
21	As Matuis	pH	2.2 miles	2018	2	Replaced pH probe. Criteria met 4-5 years
21	As Matuis	Nitrates	2.2 miles	2020	1	NO3 criteria met for past 4-5 years
23	Managaha	Nitrates	0.6 miles	2020	1	NO3 criteria met for past 4-5 years
	TOTAL Coastal Miles Delisted		**42.2***		* for specified parameters only	
	TOTAL Stream Miles Delisted		**0**			
	TOTAL Lake Acres Delisted		**0**			
	TOTAL Wetland Acres Delisted		**0**			

Several waters previously listed as impaired have been delisted in the 2024 Integrated Report. These removals were made in accordance with EPA's delisting criteria, based on new quality-controlled data or identification of deficiencies in the original listing rationale:

- **pH:** Certain segments were removed where impairments were found to be based on erroneous data from a faulty sensor. Subsequent quality-assured monitoring confirmed that pH levels meet applicable standards, making the original listings deficiencies in analysis.

- **Nitrate:** Segments previously listed for nitrate were delisted after recent monitoring (≥4–5 years) demonstrated consistent attainment of standards. While the precise cause of improvement is uncertain, reduced population and economic activity in recent years may have contributed to lower nutrient loading. Because attainment is supported by current, credible data, these listings have been removed.

In total, **42.2 coastal miles were delisted in this cycle** – **for specific parameters only** – as summarized in Table C-11.

C.3.4. TMDL Priority Ranking and Submission Schedule

With the above delistings complete, the remaining Category 5 waters are carried forward on CNMI's 303(d) list. The Clean Water Act requires that each state and territory assign a priority ranking for TMDL development. CNMI ranks waterbody/pollutant combinations as High, Medium, or Low priority using the following criteria:

- **High Priority** – Severe or widespread impairment; frequent recreation use; high tourism or fisheries value; documented fish tissue contamination; or known pollutant sources.
- **Medium Priority** – Localized or limited impairment; less frequent recreation use; or uncertain pollutant sources.
- **Low Priority** – Isolated waters with rare use; impairments suspected to be data-related; or sources remain unknown.

High-priority TMDLs are initiated first, while Medium and Low priorities are addressed as resources allow. In the interim, CNMI may pursue alternative controls such as sewer upgrades, roadway improvements, best management practices (BMPs), or Integrated Watershed Management Plans (IWMPs).

To maximize efficiency and consistency, BECQ is planning to develop TMDLs on an **island-wide basis** rather than for individual waterbody segments, following the same approach previously applied to the Enterococci TMDL for Saipan. In addition, **Dissolved Oxygen (DO%) and nutrient (nitrate and orthophosphate) impairments will be addressed together in combined TMDLs.** This reflects the strong scientific linkage between nutrient enrichment and oxygen depletion and aligns with EPA guidance encouraging watershed-based and multi-pollutant TMDLs where appropriate. A combined approach also reduces duplication of effort and cost while supporting integrated watershed management strategies.

The schedule below reflects current priorities and anticipated timelines, but BECQ recognizes that progress depends on available funding and staff capacity. Timelines may therefore be adjusted in consultation with EPA Region 9 as resources allow, while maintaining focus on the highest-priority impairments.

Planned TMDL Development Schedule (by island and pollutant)

Rota

- **Enterococci TMDL** – Low priority – target completion **2033**
- **Dissolved Oxygen & Nutrients (combined)** – Low priority – target completion **2037**
- **pH TMDL** – Low priority – target completion **2039**

Tinian and Aguigan

- **Enterococci TMDL** – Medium priority – target completion **2030**
- **Dissolved Oxygen & Nutrients (combined)** – Low priority – target completion **2035**

Saipan and Mañagaha

- **Metals TMDL** – High priority – target completion **2028**
- **Dissolved Oxygen & Nutrients (combined)** – Medium priority – target completion **2030**
- **Enterococci (additions to 2018 TMDL)** – Low priority – target completion **2031**
- **pH TMDL** – Low priority – target completion **2035**

Tables C-12 through C-15 present the current TMDL development status and schedule for impaired waters.

*New listings appear in **bold red font**, while items removed from the 303(d) list in this cycle are shown in ~~blue strike-through~~.*

TABLE C-12. 2024 TMDL Development Status for Rota

Seg ID	Segment Name	Class	Pollutant/ Combination	Priority	Status	Year first listed	Projected TMDL Submittal or Removal Date
ROTA:							
2	Sabana/Talakaya/ Palie	AA	Enterococci	Low	Continue monitoring	2008	2033
			pH	Low	Use new pH probe	2020	2039
2STR	Sabana/Talakaya/ Palie Stream	1	Enterococci	Low	Continue monitoring	2020	2033
3	Songsong	A	Enterococci	Low	Continue monitoring	2004	2033
			phosphate	Low	Continue FIA testing	2004	2037
			DO%	Low	Continue monitoring	2020	2037
			pH	Low	Use new pH probe	2020	2039
4	Uyulanhulo/Teteto	AA	Enterococci	Low	Continue monitoring	2020	2033
			pH, Low	Low	Use new pH probe	2020	2039
5	Chaliat/Talo		pH, Low	Low	Use new pH probe	2020	2039
			Nitrate	Low	Continue FIA testing	2020	2037

TABLE C-13. 2024 TMDL Development Status for Tinian and Aguigan

Seg ID	Segment Name	Class	Pollutant/ Combination	Priority	Status	Year first listed	Projected TMDL Submittal or Removal Date
TINIAN:							
7	Masalok	AA	phosphate	Low	Continue FIA monitoring	2004	2035
			Nitrate	Low	Continue FIA monitoring	2020	2035
			~~pH~~	~~Low~~	~~Use new pH probe~~	~~2020~~	~~2033~~
			Enterococci	Med	Continue monitoring	2014	2030
9	Makpo	AA	phosphate	Low	Continue FIA monitoring	2004	2035
			~~pH, Low~~	~~Low~~	~~Use new pH probe~~	~~2018~~	~~2033~~
			Nitrate	Low	Continue FIA monitoring	2020	2035
			Enterococci	Med	Continue monitoring	2022	2030
9H	Makpo (Harbor)	A	phosphate	Low	Continue FIA monitoring	2004	2035
			DO%	Low	Continue monitoring	2010	2035
			Enterococci	Med	Continue monitoring	2014	2030
10	Puntan Diaplolamanibot	AA	phosphate	Low	Continue FIA monitoring	2004	2035
			Nitrate	Low	Continue FIA monitoring	2020	2035
			Enterococci	Med	Continue monitoring	2006	2030
			DO%	Low	Continue monitoring	2022	2035
11	Puntan Tahgong	AA	phosphate	Low	Continue FIA monitoring	2004	2035
			Nitrate	Low	Continue monitoring	2020	2035
			~~pH~~	~~Low~~	~~Continue monitoring~~	~~2020~~	~~2033~~
			Enterococci	Med	Continue monitoring	2020	2030

TABLE C-14. 2024 TMDL Development Status for Saipan and Mañagaha

Seg ID	Segment Name	Class	Pollutant/ Combination	Priority	Status	Year first listed	Projected TMDL Submittal or Removal Date
SAIPAN:							
12	Kalabera	AA	Enterococci		Completed 2018	2004	**DONE**
			phosphate	Med	Continue FIA monitoring	2004	2030
			~~Nitrate~~	~~Med~~	~~Continue FIA monitoring~~	~~2020~~	~~2030~~
13	Talofofo	AA	Enterococci		Completed 2018	2004	**DONE**
			phosphate	Med	Continue FIA monitoring	2004	2030
			~~Nitrate~~	~~Med~~	~~Continue FIA monitoring~~	~~2020~~	~~2030~~
			pH	Low	Use new pH probe	2020	2035
13STR	Talofofo Stream	1	Enterococci	Low	Continue monitoring	2018	2031
14	Kagman	AA	Enterococci		RELISTED 2020	2006	**DONE**
			phosphate	Med	Continue FIA monitoring	2004	2030
			Nitrate	Med	Continue FIA monitoring	2020	2030
			~~pH~~	~~Low~~	~~Use new pH probe~~	~~2020~~	~~2035~~
15	Lao Lao	AA	Enterococci		Completed 2018	2004	**DONE**
			phosphate	Med	Continue FIA monitoring	2004	2030
			Nitrate	Med	Continue FIA monitoring	2020	2030
17A	Isley (West)	A	Enterococci		Completed 2018	2006	**DONE**
			copper	High	Fish data 2026-via 2025 NCCA	2014	2028
			lead	High	Fish data 2026-via 2025 NCCA	2014	2028
			phosphate	Med	Continue FIA monitoring	2004	2030
			~~pH, Low~~	~~Low~~	~~Use new pH probe~~	~~2020~~	~~2035~~
17B	Isley (East)	AA	Enterococci		Completed 2018	2004	**DONE**
			phosphate	Med	Continue FIA monitoring	2004	2030
			~~pH~~	~~Low~~	~~Use new pH probe~~	~~2020~~	~~2035~~
18A	Susupe (North)	AA	Enterococci		Impaired, but TMDL approved	2006	**DONE**
			DO%	Med	Continue monitoring	2010	2030
			pH, Low	Low	Use new pH probe	2020	2035
			phosphate	Med	Continue FIA monitoring	2004	2030
			Nitrate	Med	Continue FIA monitoring	2020	2030
18B	Susupe (South)	AA	Enterococci		Completed 2018	2004	**DONE**
			DO%	Med	Continue monitoring	2010	2030
			pH	Low	Use new pH probe	2020	2035
			phosphate	Med	Continue FIA monitoring	2004	2030
			Nitrate	Med	Continue FIA monitoring	2020	2030

TABLE C-14. (cont.). 2024 TMDL Development Status for Saipan and Mañagaha

Seg ID	Segment Name	Class	Pollutant/ Combination	Priority	Status	Year first listed	Projected TMDL Submittal or Removal Date
SAIPAN:							
18LAK	Susupe (South) Lake	1	E. coli		Completed 2018	2012	**DONE**
			DO%	Med	Continue monitoring	2010	2030
			ph, High	Low	Continue monitoring	2014	2035
19A	W. Takpochau (North)	A	Enterococci		Completed 2018	2004	**DONE**
			lead	High	Fish data 2026-via 2025 NCCA	2018	2028
			phosphate	Med	Continue FIA monitoring	2004	2030
			Nitrate	Med	Continue FIA monitoring	2020	2030
19B	W. Takpochau (Central)	AA	Enterococci		Completed 2018	1998	**DONE**
			~~pH, Low~~	~~Low~~	~~Use new pH probe~~	~~2018~~	~~2035~~
			DO%	Med	Continue monitoring	2010	2030
			phosphate	Med	Continue FIA monitoring	2004	2030
			Nitrate	Med	Continue FIA monitoring	2020	2030
			copper	High	Fish data 2026-via 2025 NCCA	2020	2028
			lead	High	Fish data 2026-via 2025 NCCA	2020	2028
			Hg in fish/Sed	High	Fish data 2026-via 2025 NCCA	2010	2028
19C	W. Takpochau (South)	AA	Enterococci		Completed 2018	2004	**DONE**
			DO%	Med	Continue monitoring	2008	2030
			pH, Low	Low	Use new pH probe	2016	2035
			Nitrate	Med	Continue FIA monitoring	2018	2030
			phosphate	Med	Continue monitoring	2022	2030
19STRB	W. Takpochau (Central) Stream	1	Hg in fish	High	Fish data 2026-via 2025 NCCA	2014	2028
			Enterococci	Low	Included in 2018 TMDL	2018	**DONE**
20A	Achugao (North)		DO%	Med	Continue monitoring	2010	2030
			phosphate	Med	Continue FIA monitoring	2004	2030
20B	Achugao (South)	AA	Enterococci		Completed 2018	2004	**DONE**
			DO%	Med	Continue monitoring	2010	2030
			lead	High	Fish data 2026-via 2025 NCCA	2018	2028
20B	Achugao (South) Stream	1	Enterococci	Low	Included in 2018 TMDL	2018	**DONE**
			lead	High	Fish data 2026-via 2025 NCCA	2018	2028
21	As Matuis	AA	Enterococci	Low	DELISTED 2018/RELISTED 2020	2006	2031
			DO%	Med	Continue monitoring	2010	2030
			~~pH, Low~~	~~Low~~	~~Use new pH probe~~	~~2018~~	~~2035~~
			phosphate	Med	Continue FIA monitoring	2004	2030
			~~Nitrate~~	~~Med~~	~~Continue FIA monitoring~~	~~2020~~	~~2030~~
22	Banaderu	AA	Enterococci		Completed 2018	2016	**DONE**
			phosphate	Med	Continue FIA monitoring	2004	2030

TABLE C-14. (cont.). 2024 TMDL Development Status for Saipan and Mañagaha

Seg ID	Segment Name	Class	Pollutant/ Combination	Priority	Status	Year first listed	Projected TMDL Submittal or Removal Date
MANAGAHA:							
23	Managaha		pH, Low	Low	Use new pH probe	2018	2039
			~~Nitrate~~	~~Med~~	~~Suspect erroneous, monitor~~	~~2020~~	~~2030~~
			phosphate	Med	Suspect erroneous, monitor	2020	2030

TABLE C-15. 2024 TMDL Development Status for the Northern Islands

Seg ID	Segment Name	Class	Pollutant/ Combination	Priority	Status	Year first listed	Projected TMDL Submittal or Removal Date
NORTHERN ISLANDS:							
24	Farallon de Medinilla	A	Other	Low	Residents may not enjoy aesthetically due to safety issues - bombing exercises	2020	2040

NOTE: Farallon de Medinilla (FDM) remains listed as impaired for the Aesthetic Enjoyment designated use in this reporting cycle. While BECQ has noted that the original basis for this listing – military access restrictions and alterations to island topography – does not align directly with water quality criteria under CNMI's WQS, further review is warranted. In consultation with EPA Region 9, final delisting consideration will be deferred to the next reporting cycle. Public input on this issue is encouraged and will help guide future assessments.

Together, these priorities and schedules provide a clear roadmap for addressing remaining impairments under Section 303(d). CNMI will continue to collaborate closely with USEPA, regional partners, and local institutions such as WERI, NOAA, and DoW to advance TMDL development, implement interim watershed controls, and ensure that restoration efforts deliver measurable water quality improvements.

C.4. SECTION 305(b) WATER QUALITY ASSESSMENT FOR ALL CNMI WATERS

Section 305(b) of the Clean Water Act requires each state and territory to provide a comprehensive assessment of the overall condition of all waters, including both impaired and fully supporting waterbodies. Unlike the 303(d) list, which focuses only on waters requiring TMDLs, the 305(b) assessment presents a broader picture of water quality status across the Commonwealth. The following tables summarize designated use attainment for CNMI's coastal waters, fresh surface waters, wetlands, and lakes. These tables integrate monitoring results, biological assessments, and professional judgment to provide a territory-wide accounting of water quality condition and progress over time.

Table entries use the following attainment codes: F = Fully Supporting, I = Insufficient Information, N = Not Supporting.

TABLE C-16. 2024 Attainment of Designated Uses in Saipan and Mañagaha Coastal Waters

		Bird Island Beach	Hidden, Jeffreys, and Old Man by the Sea	Forbidden, Marine, Tank beach, North Lao Lao	South Lao Lao	Private beach off cliff behind airport landing strip	Obyan, Ladder,	Unai Dankulo (Coral Ocean Point)	San Antonio lift station to Sugar Dock	Saipan Community School to Chalan Laulau Beach	Garapan Beach, Drainage #3, Garapan Fishing Dock	Hafa-Adai Drainage#2 to Inos Peace Park	DPW Channel Bridge	Sea Plane Ramp to Tanapag meeting hall	Aqua Resort to Nikko Hotel	Pau Pau beach to Wing Beach	Grotto Cave	Managaha beaches
		NEB02	NEB07, NEB03-04, CNMI-104	SEB01-02, NEB 05-06, CNMI-29, ARRA B2,5,8	SEB03, CNMI-21, ARRA C2,5,8	CNMI 72	SEB04-05, CNMI-30	SEB06	WB37-30	WB23,2-11.2	WB22,23 and WB21	WB20-11.2	WB10	WB9-7	WB6-3	WB2-1, CNMI-19	NEB01	MG01-11
WATER BODY SEGMENT ID		**12**	**13**	**14**	**15**	**16**	**17** Isley		**18** Susupe		**19** W. Takpochau			**20** Achugao		**21**	**22**	**23**
		Kalabera	Talofofo	Kagman	Lao Lao	Dan Dan	**B** (East)	**A** (West)	**B** (South)	**A** (North)	**C** (South)	**B** (Central)	**A** (North)	**B** (South)	**A** (North)	As Matuis	Banaderu	Managaha
	Designated Use																	
Coastal Waters	**Aquatic Life**	Poor Habitat, Orthophos & ***NO3 delisted***	No ALUS data, Orthophos, pH exceed, ***NO3 delisted***	Fair Habitat, Orthophos NO3 Good, ***pH delisted***	Poor Habitat, Orthophos & NO3 Exceed	F	Fair Habitat, Orthophos & ***pH delisted***	Poor Habitat, Orthophos & ***pH delisted***	Good Habitat, DO% &pH Good, Orthophos & NO3 Exceed	Good Habitat, DO% low, Orthophos pH, & NO3 Exceed	Poor Habitat, DO% & pH low, Orthophos & NO3 Exceed	Poor Habitat, DO%, Orthophos NO3 Exceed ***& pH delisted***	Poor Habitat, Orthophos, NO3 Exceed pH good	Poor Habitat, DO%	Fair Habitat, DO%, Orthophos Exceeds	Poor Habitat, Orthophos & NO3 good DO%, pH good	No ALUS data, Orthophos Exceeds	Fair habitat, Orthophos Exceed, pH good & ***NO3 delisted***
	Fish Consumption	i	i	i	i	i	i	Cu & Pb in biota	i	i	i	Hg in Fish tissue, Pb & Cu in bivalves	Pb in bivalves	Pb in bivalves	F	i	i	i
	Recreation	Entero exceed	Entero & pH exceed	Entero exceed & ***pH delisted***	Entero Exceed	F	Entero exceed & pH good	Entero exceed & pH Good	Entero Good & pH Good	Entero & pH Exceed	Entero exceed, pH low	Entero exceed, ***pH delisted***	Entero exceed, pH good	Entero exceed	Entero exceed	Entero & pH good	Entero exceed	pH good
	Aesthetic enjoyment/others	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
	CALM Assessment Category	5	5	5	5	2	5	5	5	5	5	5	5	5	5	5	***5***	5

F - Fully supported | i - Insufficient Information | TMDL completed | Not Supporting DU | ***Changes bold italics***

TABLE C-17. 2024 Attainment of Designated Uses in Saipan Freshwater Streams

		Bird Island Beach	Hidden Beach drainage, Talofofo, and Hasngot stream	Marine, and Tank beach drainages; North LaoLao streams	South Lao Lao streams	Private beach off cliff behind airport landing strip	Obyan, Ladder,	Unai Dankulo (Coral Ocean Point)	San Antonio lift station to Sugar Dock	Community School to Chalan Laulau Beach	Garapan Fishing Dock, Garapan Drainage #3, Garapan Beach	Falipe Stream, Garapan Drainages #1-#2	Tasi Stream, Isa Rd, Chalan Pale Arnold culverts, DPW Channel Bridge Mangroves	Achugao, Dogas and Agatan Streams	Aqua Resort to Kensington Hotel	Pau Pau beach to Wing Beach	Grotto Cave	Managaha beaches
			TAL 01-03	KAG01-02, LAO 01	LAO 02-05							WTC 01-03	WTN01	ACH01-03				
WATER BODY SEGMENT ID		**12**	**13**	**14**	**15**	**16**	**17** Isley		**18** Susupe		**19** W. Takpochau			**20** Achugao		**21**	**22**	**23**
							B	**A**	**B**	**A**	**C**	**B**	**A**	**B**	**A**			
	Designated Use	Kalabera	Talofofo	Kagman	Lao Lao	Dan Dan	(East)	(West)	(South)	(North)	(South)	(Central)	(North)	(South)	(North)	As Matuis	Banaderu	Managaha
Streams	**Aquatic Life**	***i***	Native Habitat	Native Habitat	SVAP Fully	***i***	i	i	i	i	i	***SVAP Fully***	***SVAP Fully***	Native Habitat, ***SVAP Fully***	Native Habitat, SVAP Fully	i		
	Fish Consumption	i	i	i	i	i	i	i	i	i	i	Hg in biota	i	Hg, Pb in bivalves	i	i		
	Recreation	i	Entero exceed	i	i	i	i	i	i	i	i	Entero exceed	i	Entero exceed	i	i		
	Potable Water Supply																	
	Aesthetic Enjoyment/others	F	F	F	F	F	F	F	F	F	F	N	F	F	F	F		
	CALM Assessment Category	2	5	3	***2***	2	***2***	***2***	***2***	2	***2***	5	2	5	2	2		

F - Fully support DU | I - Insufficient Information | N - Not Attaining DU | ***Changes in bold italics*** | Does not exist

TABLE C-18. 2024 Attainment of Designated Uses in Saipan Wetlands and Susupe Lake

			Talofofo	Kagman Education Island		Dan Dan	E. Isley Agricultural	Flores Pond, W. Isldy Agricultural	Lake, Chalan Kanoa Pot holes, Chalan Piao	Chalan LauLau		MIHA, AMP	DPW Mangrove, Sadok Tasi, Lower Base	Faliq Mitigation	San Roque			
WATER BODY SEGMENT ID		**12**	**13**	**14**	**15**	**16**	**17** Isley		**18** Susupe		**19** W. Takpochau			**20** Achugao		**21**	**22**	**23**
							B	**A**	**B**	**A**	**C**	**B**	**A**	**B**	**A**			
Waterbody Type	**Designated Use**	Kalabera	Talofofo	Kagman	Lao Lao	Dan Dan	(East)	(West)	(South)	(North)	(South)	(Central)	(North)	(South)	(North)	As Matuis	Banaderu	Managaha
Lakes	Aquatic Life								N									
	Fish Consumption								I									
	Recreation								N									
	Potable Water Supply																	
	Aesthetic Enjoyment/others								F									
CALM Assessment Category									5									
Wetlands	**Aquatic Life**		i	F		i	i	N	N	N	X	N	N	N	N			
CALM Assessment Category			4c	1		4c	4c	4c	4c	4c	X	4c	4c	4c	4c			

TABLE C-19. 2024 Attainment of Designated Uses in Rota Coastal Marine Waters

		No sites, but very remote	Coral Garden, Kokomo, Talakhaya	Mobil, E. Harbor, Teweksberry, W. Harbor, Storm drains	Vet Memorial, Teteto, & Guata	Swimming Hole
		*	R1-R2 R13	R3-R8	R9-R11	R12
Rota						
WATER BODY SEGMENT ID		**1**	**2**	**3**	**4**	**5**
	Designated Use	**Dugi/ Gampapa/ Chenchon**	**Sabana/ Talakhaya/ Palie**	**Songsong**	**Uyulanhulo/ Teteto**	**Chaliat/Talo**
Coastal Waters	**Aquatic Life**	Fair Habitat	Poor Habitat, pH Exceed	Fair Habitat, Orthophos, DO% & pH Exceed	Fair Habitat, pH Low	Poor Habitat, NO3 Exceed & pH Low
	Fish Consumption	F	i	i	i	i
	Recreation	F	Entero & pH exceed	Entero & pH exceed	Entero & pH Low	*Entero delist, pH Low*
	Aesthetic enjoyment/others	F	F	F	F	F
	CALM Assessment Category	1	5	5	***5***	5

F - Fully Supported | i - Insufficient Information | Not supporting | ***Changes bold italics***

TABLE C-20. 2024 Attainment of Designated Uses in Rota Freshwater Streams

		No sites, but very remote	Coral Garden, Kokomo, Talakhaya	Mobil, E. Harbor, Teweksberry, W. Harbor, Storm drains	Vet Memorial, Teteto Beach	Swimming Hole
			R1-R2 R13	R3-R8	R9-R11	R12
Rota						
WATER BODY SEGMENT ID		**1**	**2**	**3**	**4**	**5**
	Designated Use	**Dugi/ Gampapa/ Chenchon**	**Sabana/ Talakhaya/ Palie**	**Songsong**	**Uyulanhulo /Teteto**	**Chaliat/Talo**
Streams	**Aquatic Life**		F			
	Fish Consumption		i			
	Recreation		Entero Exceeds			
	Potable Water Supply					
	Aesthetic Enjoyment/others		F			
	CALM Assessment Category		***5***			

Not Attaining DU | Insufficient Information | Support | No fresh surface water

TABLE C-21. Attainment of Designated Uses in Rota Wetlands and Lakes

Rota						
WATER BODY SEGMENT ID		**1**	**2**	**3**	**4**	**5**
Type	**Designated Use**	**Dugi/Gampapa / Chenchon**	**Sabana/ Talakhaya/ Palie**	**Songsong**	**Uyulanhulo/ Teteto**	**Chaliat/Talo**
Lakes	**Aquatic Life**					
	Fish Consumption					
	Recreation					
	Potable Water Supply					
	Aesthetic Enjoyment/others					
	CALM Assessment Category					
Wetlands	**Aquatic Life**	i	i	i	i	i
	CALM Assessment Category					

Not Attaining | Insufficient Information | Support | No fresh waters

TABLE C-22. 2024 Attainment of Designated Uses in Tinian and Aguigan Coastal Marine Waters

		Goat Island	Unai Masalok, Dangkolo		Tachogna, Taga, Kammer	Harbor	Leprosarium I & II	Unai Babui, Chulu
		AGU1 - AGU2	T1-T2		T7-T10	T9	T5-T6	T3-T4
		Aguigan	**Tinian**					
WATER BODY SEGMENT ID		6	7	8	9	9 H	10	11
	Designated Use	Aguigan	Masalok	Carolinas	Makpo	Makpo Harbor	Puntan Daiplolamanibot	Puntan Tahgong
Coastal Waters	Aquatic Life	***Good Habitat (upgrade)***	***Good Habitat***, Orthophos good, NO3, & ***pH delisted***	F	Poor Habitat, Orthophos good, NO3 exceed, ***pH delisted***	No ALUS site, Orthophos good, & Low DO%	***Fair Habitat***, Orthophos good, DO% & NO3	Poor Habitat, Orthophos good, NO3 & ***pH Delisted***
	Fish Consumption	F	i	F	i	i	i	i
	Recreation	F	Entero exceed, ***pH delisted***	F	Entero exceed, ***pH delisted***	Entero Exceed	Entero exceed	Entero exceed, ***pH delisted***
	Aesthetic enjoyment/others	F	F	F	F		F	F
	CALM Assessment Category	***1 (upgrade from 4c)***	5	1	5	5	5	5
	Changes in bold italics	Fully Supporting		Insufficient information		Not Attaining DU		

TABLE C-23. 2024 Attainment of Designated Uses in Tinian and Aguigan Wetlands

			Bateha II is relocated to Puntan/ Daiplolamanibot		Makpo Complex		Bateha I & II	Hagoi & Mahalang Complexes
		Aguigan	**Tinian**					
WATER BODY SEGMENT ID		**6**		**8**	**9**	**9 H**	**10**	**11**
	Designated Use	Aguigan	Masalok	Carolinas	Makpo	Makpo Harbor	Puntan Daiplolamanibot	Puntan Tahgong
Wetlands	**Propagation of Aquatic Life**				i		F	F
	CALM Assessment Category				4c		1	1
	No wetland present		Fully		Insufficient		***Changes in bold italics***	

TABLE C-24. 2024 Attainment of Designated Uses in Northern Islands Coastal Waters

WATER BODY SEGMENT ID		24	25	26	27	28	29	30	31	32	33
	Designated Use	Farallon De Medinilla (No'os)	Anatahan	Sarigan	Guguan	Alamagan	Pagan	Agrihan	Asuncion	Maug	Farallon De Pajaros (Uracas)
Coastal Waters	Aquatic Life	F	F	F	F	F	F	F	F	F	F
	Fish Consumption	i	F	F	F	F	i	F	F	F	F
	Recreation	F	F	F	F	F	F	F	F	F	F
	Aesthetic enjoyment/others	Access restrictions; topographic changes	F	F	F	F	F	F	F	F	F
	CALM Assessment Category	5	1	1	1	1	3	1	1	1	1

TABLE C-25. 2024 Attainment of Designated Uses in Northern Islands Freshwater Streams

	WATER BODY SEGMENT ID	24	25	26	27	28	29	30	31	32	33
	Designated Use	Farallon De Medinilla	Anatahan	Sarigan	Guguan	Alamagan	Pagan	Agrihan	Asuncion	Maug	Farallon De Pajaros
Streams	Aquatic Life		F	F	F	F	i	F	F	F	F
	Fish Consumption		i	F	F	F	i	F	F	F	F
	Recreation		F	F	F	F	i	F	F	F	F
	Potable Water Supply			F	F	F	i	F	F	F	F
	Aesthetic enjoyment/others		F	F	F	F	F	F	F	F	F
	CALM Assessment Category		3	1	1	1	3	1	1	1	1

TABLE C-26. 2024 Attainment of Designated Uses in Northern Islands Wetlands and Lakes

WATER BODY SEGMENT ID		24	25B	25A	26	27	28	29B	29A	30	31	32	33
Waterbody Type	Designated Use	Farallon De Medinilla	Anatahan (Lagu "Western" Lake)	Anatahan (Haya "Eastern" Lake)	Sarigan	Guguan	Alamagan	Pagan (Sanhalom)	Pagan (Lagona Sanhiyong)	Agrihan	Asumcion	Maug	Farallon De Pajaros
Lakes	Aquatic Life		i	i				F	F				
	Fish Consumption		i	i				i	i				
	Recreation		i	i				F	F				
	Potable Water Supply		i	i									
	Aesthetic Enjoyment/others		F	F				F	F				
CALM Assessment Category			2	3				3	3				
Wetlands	Aquatic Life							i	i				
CALM Assessment Category								3	3				

APPENDIX I: Coastal Water Quality Data for 2024 Assessments

NOTES:

1. "% violation" means percent of samples which triggered Beach Advisory. Advisories are triggered if a sample exceeds either the STV, or GM over 30 day period.
2. "GM" means geometric mean of the most recent 30 day period including the single sampling event.
3. * - Means not sampled, ** - Means newly established long-term sites without sufficient data for statistical inference for that year.
4. COLOR LEGEND: = impaired (>10-20); = severely impaired (>20) = Dangerous access

TABLE I-a. 2024 Enterococci Exceedances of CNMI Water Quality Standards in Rota Coastal Waters

Sample Station ID	Sampling Station Name	Enterococci % Violations																				Segment Class
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
	SEGMENT 1: DUGI/GAMPAPA/CHENCHON																					
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	AA
	SEGMENT 2: SABANA/TALAKAYA/PALIE																					
R1	Coral Garden	8	4	0	5	17	19	26	0	*	*	*	*	*	*	*	*	*	*	*	*	AA
R2	Kokomo Beach Club	0	3	7	5	20	8	19	10	15	21	0	13	0	0	2	0	4	10	4	33	AA
R13	Talakhaya	*	*	*	*	*	*	*	*	*	*	**	**	10	24	33	24	14	63	*	*	AA
	SEGMENT 3: SONGSONG																					
R3	Mobil Storm Drain	0	10	0	0	7	12	19	5	19	50	38	43	9	0	5	0	3	0	0	10	A
R4	East Harbor Dock	4	4	0	0	0	5	4	0	7	21	14	26	13	0	5	0	0	0	4	14	A
R5	Tweksberry Beach	12	0	0	0	0	4	4	5	7	0	5	4	0	0	5	0	0	0	8	0	AA
R6	W. Harbor Marina	12	10	0	0	7	12	0	14	15	29	29	9	13	32	14	12	7	23	4	24	A
R7	Dist #2 Storm Drain	42	17	4	14	27	12	4	4	19	43	45	35	4	20	5	12	0	35	32	14	AA
R8	Dist #1 Storm Drain	4	3	0	9	10	0	7	10	11	7	5	0	0	8	1	0	0	0	4	0	AA
	SEGMENT 4: UYULANHULO/TETETO																					
R9	Veterans Memorial	0	0	4	0	0	0	4	5	4	0	5	0	0	0	5	4	0	0	0	0	AA
R10	Teteto Beach	0	0	0	0	0	0	4	5	0	0	0	9	0	0	0	12	0	0	0	0	AA
R11	Guata Beach	19	14	4	5	0	0	4	14	7	0	0	0	0	0	0	4	3	0	0	0	AA
	SEGMENT 5: CHALIAT/TALO																					
R12	Swimming Hole	19	7	7	0	0	0	0	9	7	29	5	13	0	0	0	0	0	3	0	5	AA

* Not sampled.

TABLE I-b. 2024 Enterococci Exceedances of CNMI Water Quality Standards in Tinian Coastal Waters

Sample Station ID	Sampling Station Name	Enterococci % Violations																			
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Segment Class
SEGMENT 6: AGUIGAN																						
AGU 2	Goat Island	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*	*	*	*	*	AA
SEGMENT 7: MASALOK																						
T1	Unai Masalok	4	0	0	8	7	7	9	0	18	17	13	16	8	0	7	0	36	0	0	0	AA
T2	Unai Dangkolo	4	15	4	4	4	3	9	7	18	7	13	11	4	4	4	9	4	3	0	0	AA
SEGMENT 9: MAKPO																						
T7	Tachogna	8	4	4	0	4	0	0	11	11	10	4	5	8	0	0	4	4	4	0	9	AA
T8	Taga Beach	8	0	0	0	0	0	14	7	4	3	5	5	4	0	0	0	0	11	0	5	AA
T10	Jones (Kammer)	4	4	0	4	0	0	14	0	4	0	9	5	0	4	4	4	0	0	0	0	AA
SEGMENT 9H: MAKPO HARBOR																						
T9A	Harbor	4	19	7	0	7	0	0	4	0	17	13	20	8	0	0	0	15	3	4	0	A
SEGMENT 10: PUNTAN DIAPLOMANIBOT																						
T5	Leprosarium I	4	4	0	12	7	7	10	4	11	21	13	11	8	0	7	4	35	10	8	0	AA
T6	Leprosarium II	0	12	0	15	4	7	20	7	4	7	17	20	4	4	11	0	31	0	8	0	AA
SEGMENT 11: PUNTAN TAHGONG																						
T3	Unai Babui	4	15	7	4	18	7	0	4	11	3	9	16	4	0	0	14	20	3	4	0	AA
T4	Unai Chulu	4	19	0	0	7	0	0	7	14	3	9	11	4	4	0	4	12	0	0	0	AA
T11	Chiget	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	AA

TABLE I-c. 2024 Enterococci Exceedances of CNMI Water Quality Standards in Saipan and Mañagaha Coastal Waters

Sample Station ID	Sampling Station Name	Enterococci % Violations																				
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Segment Class
	SEGMENT 12: KALABERA																					
NEB 02	Bird Island	23	30	34	10	3	7	7	14	7	21	23	23	15	38	27	6	15	14	11	21	AA
	SEGMENT 13: TALOFOFO																					
NEB 07	Hidden	38	30	31	24	30	22	18	24	13	50	17	32	11	31	32	22	7	8	26	36	AA
NEB 03	Jeffrey's	15	50	38	29	37	26	21	38	20	29	9	18	7	17	35	15	10	3	29	13	AA
CNMI-104	Jeffrey's Beach Reef flat	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	0	0	0	AA
NEB 04	Old Man By the Sea	20	50	24	24	10	19	7	24	7	31	18	41	19	31	21	5	19	3	7	33	AA
	SEGMENT 14: KAGMAN																					
NEB 05	Marine Beach	15	15	3	14	13	11	11	0	10	29	8	0	4	7	8	0	0	0	10	0	AA
CNMI-29	Tank Beach Reef flat	*	*	*	*	*	*	0	*	*	0	*	0	0	0	0	0	*	0	0	0	AA
NEB 06	Tank Beach	23	5	3	19	10	4	7	10	3	13	4	5	4	0	0	8	0	3	0	4	AA
SEB 01	Forbidden Island	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		AA
SEB 02	North LaoLao Beach	19	30	14	19	13	19	7	10	23	16	8	9	4	0	8	0	0	0	13	0	AA
ARRA B2	North Laolao Reef Flat	*	*	*	*	*	*	*	*	*	*	*	*	0	8	22	0	11	0	22	18	AA
ARRA B5	North Laolao Reef Flat	*	*	*	*	*	*	*	*	*	*	*	*	8	0	0	13	11	0	11	9	AA
ARRA B8	North Laolao Reef Flat	*	*	*	*	*	*	*	*	*	*	*	*	8	0	0	13	0	0	0	9	AA

TABLE I-c (cont.). 2024 Enterococci Exceedances of CNMI Water Quality Standards in Saipan and Mañagaha Coastal Waters

Sample Station ID	Sampling Station Name	Enterococci % Violations																				
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Segment Class
	SEGMENT 15: LAO LAO																					
CNMI-21	Central LaoLao Beach reef flat	*	*	*	*	*	*	0	*	*	0	*	0	0	0	0	0	0	0	0	0	AA
SEB 03	South Laolao	19	25	10	33	37	15	25	14	23	16	0	5	15	0	0	4	0	7	17	0	AA
ARRA C2	South Laolao Reef Flat	*	*	*	*	*	*	*	*	*	*	*	*	8	15	11	0	11	8	0	0	AA
ARRA C5	South Laolao Reef Flat	*	*	*	*	*	*	*	*	*	*	*	*	0	8	0	0	0	8	0	0	AA
ARRA C8	South Laolao Reef Flat	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	9	AA
	SEGMENT 16: DAN DAN																					
CNMI-72	DanDan Reef Flat	*	*	*	*	*	*	0	*	*	0	0	*	0	0	0	0	*	0	*	0	AA
	SEGMENT 17A: ISLEY (WEST)																					
SEB 06	Unai Dangkulo	46	35	14	33	13	37	43	19	37	16	33	5	4	3	12	0	7	17	4	4	AA
	SEGMENT 17B: ISLEY (EAST)																					
SEB 04	Obyan Beach	27	15	0	10	3	15	7	5	20	10	8	5	4	7	0	4	3	0	3	4	AA
CNMI-30	Obyan Beach Reef Flat	*	*	*	*	*	*	0	*	*	0	*	0	0	0	0	0	*	0	0	0	AA
SEB 05	Ladder Beach	12	20	10	5	0	7	21	33	17	10	22	0	11	7	12	0	0	13	3	13	AA
	SEGMENT 18A: SUSUPE (NORTH)																					
WB 24	Chalan Laulau	17	4	6	6	2	4	0	6	2	6	13	6	0	4	0	8	10	21	6	10	AA
WB 25	San Jose	6	2	6	9	0	8	8	12	2	0	12	10	0	0	2	4	4	10	2	4	AA
WB 26	Civic Center	4	0	4	11	4	2	4	6	2	6	12	10	2	2	4	10	4	6	6	2	AA
WB 27	Saipan World Resort	6	6	8	9	2	6	12	15	4	2	11	0	0	0	6	2	4	0	8	0	AA
WB 28	Kanoa Resort	4	4	8	4	2	6	12	8	0	8	4	4	2	4	0	4	0	0	0	4	AA
WB 29	Saipan Community School	8	8	8	6	2	4	8	2	0	10	3	4	0	0	0	6	2	0	0	4	AA

TABLE I-c (cont.). 2024 Enterococci Exceedances of CNMI Water Quality Standards in Saipan and Mañagaha Coastal Waters

Sample Station ID	Sampling Station Name	Enterococci % Violations																				
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Segment Class
	SEGMENT 18B: SUSUPE (SOUTH)																					
WB 30	Sugar Dock	52	14	19	19	66	37	19	29	21	29	32	18	6	15	24	31	4	2	0	0	AA
WB 31	CK Dist #2 Drainage	17	10	8	21	32	25	12	25	15	25	29	14	10	13	25	10	6	8	4	4	AA
WB 32	CK Dist #4 Lally	10	6	6	6	6	6	8	19	11	12	13	10	8	4	4	10	2	4	10	4	AA
WB 33	Chalan Piao	10	6	6	13	4	8	17	6	8	8	0	6	0	4	4	8	0	6	12	0	AA
WB 34	Hopwood School	21	6	13	21	6	2	15	10	8	10	14	16	8	6	8	8	0	6	12	0	AA
WB 35	San Antonio	19	6	6	0	4	6	8	6	4	6	3	0	6	4	2	8	0	10	12	0	AA
WB 36	Pacific Island Club	6	4	2	6	6	6	8	6	6	4	4	0	0	2	4	6	2	4	14	0	AA
WB 37	San Antonio Lift Station	33	6	4	13	22	10	12	10	6	4	23	12	4	2	4	4	0	8	10	2	AA
	SEGMENT 19A: WEST TAKPOCHAU (NORTH)																					
WB 10	DPW Channel Bridge	33	67	77	66	86	79	75	88	69	67	64	47	38	44	52	16	14	25	19	8	A
	SEGMENT 19B: WEST TAKPOCHAU (CENTRAL)																					
WB 11.2	Eloy Inos Peace Park	42	76	56	68	70	50	42	33	33	39	24	33	17	27	18	13	4	17	20	6	A
WB 13	Outer Cove Marina	10	21	4	13	0	2	2	8	4	0	14	6	2	2	0	6	6	4	15	6	A
WB 12	Smiling Cove Marina	6	14	4	19	2	12	13	21	11	4	19	14	13	2	2	10	10	17	23	8	A
WB 12.1	American Memorial Park Drainage	25	39	29	32	40	50	27	48	20	21	6	15	10	28	24	28	8	40	27	4	A
WB 14	Micro Beach	8	17	13	21	12	8	13	12	21	18	4	14	2	2	6	8	4	10	4	10	AA
WB 15	Hyatt Hotel	10	21	13	15	2	4	10	17	8	12	4	12	2	6	18	6	4	12	6	6	AA
WB 16	Fiesta Resort	17	25	17	17	0	8	12	4	6	8	13	15	11	4	15	10	0	4	4	2	AA
WB 17	Drainage #1	54	37	31	36	20	10	25	17	8	12	14	10	32	2	0	10	2	6	8	6	AA
WB 18	Imperial Pacific Resort	17	17	12	15	8	2	2	12	8	10	19	18	4	4	6	6	2	4	6	8	AA
WB 19	GrandVrio Hotel	31	25	29	26	40	19	19	38	17	14	29	23	9	18	6	22	18	6	23	8	AA
WB 20	Drainage #2	33	31	38	32	46	17	25	29	13	24	32	20	13	23	8	6	14	10	19	14	AA

TABLE I-c (cont.). 2024 Enterococci Exceedances of CNMI Water Quality Standards in Saipan and Mañagaha Coastal Waters

Sample Station ID	Sampling Station Name	Enterococci % Violations																				
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Segment Class
	SEGMENT 19C: WEST TAKPOCHAU (SOUTH)																					
WB 21	Garapan Fishing Dock	56	35	33	36	50	63	56	69	55	31	54	47	49	40	76	51	35	40	38	69	AA
WB 23	Drainage #3	13	10	17	43	48	33	27	56	10	14	14	16	12	15	8	8	10	15	19	14	AA
WB 22	Garapan Beach	21	17	12	23	6	10	21	31	17	16	27	20	4	12	12	10	6	15	10	10	AA
	SEGMENT 20A: ACHUGAO (NORTH)																					
WB 03	Kensington Hotel	21	8	6	19	4	6	0	10	8	8	7	16	0	0	6	0	4	4	0	2	AA
WB 04	San Roque School	35	14	13	17	14	10	4	8	6	10	18	14	4	2	4	2	0	4	8	2	AA
WB 05	Plumeria Hotel	10	12	6	13	4	0	4	19	4	2	18	12	4	6	8	4	0	4	12	6	AA
WB 06	Aqua Resort Hotel	8	14	12	13	2	4	6	8	2	4	28	12	2	4	7	4	4	8	12	2	AA
	SEGMENT 20B: ACHUGAO (SOUTH)																					
WB 07	Tanapag Meeting Hall	44	35	50	32	36	38	37	35	26	40	44	42	15	31	20	20	8	23	48	16	AA
WB 08	Central Repair Shop	33	35	35	34	34	56	23	38	39	37	26	39	6	23	29	35	10	37	35	6	A
WB 09	Sea Plane Ramp	0	4	2	15	0	0	0	2	2	2	3	2	4	6	8	2	4	21	19	2	A
	SEGMENT 21: AS MATUIS																					
WB 01	Wing Beach	11	14	10	13	4	6	4	4	4	2	4	14	2	10	10	4	8	6	8	0	AA
CNMI-19	Wing Beach Reef Flat	*	*	*	*	*	*	0	*	*	0	0	0	0	0	0	0	0	0	0	0	AA
WB 02	Pau-Pau Beach	25	6	6	15	2	10	0	0	4	10	10	18	4	0	16	4	6	8	8	0	AA
	SEGMENT 22: BANADERU																					
NEB 01	Grotto Cave	27	10	0	5	0	4	7	0	3	10	0	18	33	24	31	22	15	49	11	12	AA

TABLE I-c (cont.). 2024 Enterococci Exceedances of CNMI Water Quality Standards in Saipan and Mañagaha Coastal Waters

Sample Station ID	Sampling Station Name	Enterococci % Violations																				
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Segment Class
	SEGMENT 23: MANAGAHA																					
MG 01	Dock	0	4	8	0	0	0	0	0	4	0	9	5	0	0	0	0	0	0	0	0	AA
MG 02	Swimming Area A	0	7	4	4	0	0	5	4	7	0	5	0	4	0	3	0	0	3	0	0	AA
MG 03	Swimming Area A	8	4	4	0	4	0	5	0	0	0	0	8	0	0	3	0	0	0	0	0	AA
MG 04	Swimming Area B	4	4	0	0	0	4	***19	0	***15	0	5	4	0	7	3	4	4	0	0	0	AA
MG 05	Managaha Beach	4	4	0	0	0	0	5	4	***11	0	0	0	4	0	3	0	0	0	0	0	AA
MG 06	Managaha Beach	8	0	4	4	0	0	5	7	7	3	***18	4	4	0	0	0	0	0	0	0	AA
MG 07	Managaha Beach	0	4	7	0	0	7	5	4	4	0	0	4	0	0	3	0	0	0	0	0	AA
MG 08	Beach Near Statue	0	4	0	0	0	4	5	0	7	7	5	4	0	0	3	0	0	0	0	0	AA
MG 09	Managaha Beach	0	4	0	0	0	0	5	0	4	7	9	4	0	0	0	0	0	0	0	0	AA
MG 10	Managaha Beach	0	0	4	4	4	0	5	0	4	7	0	4	0	0	3	0	0	3	0	0	AA
MG 11	Next to Dock	***15	4	4	0	4	0	10	0	7	3	9	***13	4	0	3	0	0	0	0	0	AA

*** Very few exceedances. Given that Mañagaha has such a strong historical record of meeting all bacteriological, chemical and physical WQS, and again meets all WQS. The limited number of exceedances in previous years are thought to be associated with extreme storm events resuspending naturally occurring Enterococci.

TABLE I-d. 2024 Enterococci Exceedances of CNMI Water Quality Standards in Northern Islands Coastal Waters

Sample Station ID	Sampling Station Name	Entero % Violations				
		2020	2021	2022	2023	Segment Class
	SEGMENT 24: FARALLON DE MEDINILLA (No'os)					
*	Farallon de Medinilla	*	*	*	*	AA
	SEGMENT 25: ANATAHAN					
*	Anatahan	*	*	*	*	A
	SEGMENT 26: SARIGAN					
*	Sarigan	*	*	*	*	AA
	SEGMENT 27: GUGUAN					
*	Guguan	*	*	*	*	AA
	SEGMENT 28: ALAMAGAN					
*	Alamagan	*	*	*	*	AA
	SEGMENT 29: PAGAN					
PAG-01	North of Gold Beach	*	*	*	*	AA
PAG-02	Coast (west of Church)	*	0	*	*	AA
PAG-03	NE of the tip of the Southern volcanoes	*	*	*	*	AA
PAG-04	West coast across from Sanhalom	*	0	*	*	AA
PAG-05	West coast across from the Southern volcanoes	*	*	*	*	AA
PAG-06	Southern most beach of the Southern Volcanoes	*	*	*	*	AA
PAG-07	East of Ancient Village	*	*	*	*	AA
PAG-08	West coast of Maru Mt.	*	0	*	*	AA
PAG-09	Coastline east of North Beach	*	*	*	*	AA
PAG-10	Isthmus NW coast	*	*	*	*	AA
PAG-11	Eastern coastline of the Northern volcano	*	*	*	*	AA
PAG-12	South beach (of the Northern Volcano)	*	0	*	*	AA
PAG-13	SE beach of Northern volcano	*	*	*	*	AA
PAG-14	Coastline north of PAG-04 and south of PAG-15	*	0	*	*	AA
PAG-15	Northern most coast of the Norhern volcano	*	*	*	*	AA
PAG-16	NW of Togari Rock on the Northern volcano	*	*	*	*	AA
PAG-17	West coast of Togari Mt.	*	0	*	*	AA
PAG-18	Isthmus SW coast	*	0	*	*	AA
*	Green beach of Shomushon Bay (west of Village)	*	0	*	*	AA
*	Red beach (Apaan Bay's black sand beach)	*	0	*	*	AA
*	Blue beach (west of Laguna Sahniyong)	*	0	*	*	AA
*	North beach (northern most beach)	*	*	*	*	AA
*	Gold beach (shopping mall)	*	0	*	*	AA
*	South beach (of the Northern volcano)	*	0	*	*	AA
*	Palaksi "White Sands" (cut east of South Beach)	*	0	*	*	AA

TABLE I-d (cont.). 2024 Enterococci Exceedances of CNMI Water Quality Standards in Northern Islands Coastal Waters

Sample Station ID	Sampling Station Name	Entero % Violations				
		2020	2021	2022	2023	Segment Class
	SEGMENT 30: AGRIHAN					
*	Agrihan	*	*	*	*	AA
	SEGMENT 31: ASUNCION					
*	Asuncion	*	*	*	*	AA
	SEGMENT 32: MAUG					
*	Maug	*	*	*	*	AA
	SEGMENT 33: FARALLON DE PAJAROS (Uracas)					
*	Pajaros	*	*	*	*	AA

* Not yet established or not sampled.

TABLE I-e. 2024 Dissolved Oxygen (DO%) Exceedances of CNMI Water Quality Standards in Rota Coastal Waters

Sampling Station ID	Sampling Station Name	DO % Exceedences																Segment Class
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
SEGMENT 1: DUGI/GAMPAPA/CHENCHON																		
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	AA
SEGMENT 2: SABANA/TALAKAYA/PALIE																		
R1	Coral Garden	36	19	0	0	*	*	*	*	*	*	*	*	*	*	*	*	AA
R2	Kokomo Beach Club	36	20	0	0	0	0	5	5	0	0	0	10	0	0	0	5	AA
R13	Talakhaya	**	**	**	**	**	**	**	**	0	0	0	10	0	6	*	*	AA
SEGMENT 3: SONGSONG																		
R3	Mobil Storm Drainage	0	14	0	0	0	0	0	5	0	0	0	5	0	0	4	5	A
R4	East Harbor Dock	0	0	0	0	0	0	0	10	0	0	0	5	0	0	0	0	A
R5	Teweksberry Beach	32	24	0	0	0	0	0	5	0	4	0	30	7	7	4	9	AA
R6	West Harbor Marina	36	14	0	0	0	0	5	11	0	4	0	29	19	26	12	18	A
R7	Dist #2 Storm Drain	36	19	0	0	0	0	0	5	0	0	0	14	6	11	4	5	AA
R8	Dist #1 Storm Drain	32	19	0	0	0	0	0	5	0	4	5	24	0	0	4	9	AA
SEGMENT 4: UYULANHULO/TETETO																		
R9	Veterans Memorial	32	5	0	0	0	0	0	5	0	0	0	5	0	0	0	0	AA
R10	Teteto Beach	36	10	0	0	0	0	0	10	0	0	0	5	0	0	4	0	AA
R11	Guata Beach	36	10	0	0	0	0	0	5	0	0	5	10	0	4	0	0	AA
SEGMENT 5: CHALIAT/TALO																		
R12	Swimming Hole	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	AA

TABLE I-f. 2024 Dissolved Oxygen (DO%) Exceedances of CNMI Water Quality Standards in Tinian Coastal Waters

Sampling Station ID	Sampling Station Name	DO % Exceedences																
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Segment Class
SEGMENT 6: AGUIGAN																		
AGU 2	Goat Island	*	*	*	*	*	*	*	*	*	*	0	*	*	*	*	*	AA
SEGMENT 7: MASALOK																		
T01	Unai Masalok Beach	30	0	0	0	0	7	0	0	0	4	0	0	0	0	0	0	AA
T02	Unai Dangkolo	30	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	AA
SEGMENT 9: MAKPO																		
T07	Tachogna Beach	30	0	0	0	0	7	0	0	4	8	0	0	0	0	0	0	AA
T08	Taga Beach	33	5	0	0	0	11	0	0	4	8	0	0	0	0	0	0	AA
T10	Jones (Kammer) Beach	30	0	0	0	0	4	0	5	4	4	0	0	0	4	0	0	AA
SEGMENT 9H: MAKPO HARBOR																		
T09	Makpo Harbor	33	35	0	0	4	25	0	10	32	35	28	21	50	45	41	14	A
SEGMENT 10: PUNTAN DIAPLOMANIBOT																		
T05	Leprosarium I	30	0	0	0	0	4	0	0	4	0	0	5	14	10	4	0	AA
T06	Leprosarium II	30	0	0	0	0	7	0	0	0	0	0	6	14	3	8	0	AA
SEGMENT 11: PUNTAN TAHGONG																		
T03	Unai Babui	30	0	0	4	0	7	0	0	0	0	0	0	0	0	0	5	AA
T04	Unai Chulu	30	0	0	4	0	4	0	0	0	4	4	6	0	0	0	0	AA
T11	Chiget	*	*	*	*	*	*	*	*	*	*	*	*	*	*		0	AA

TABLE I-g. 2024 Dissolved Oxygen (DO%) Exceedances of CNMI Water Quality Standards in Saipan and Mañagaha Coastal Waters

Sampling Station ID	Sampling Station Name	% DO Exceedences																
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Segment Class
SEGMENT 12: KALABERA																		
NEB 02	Bird Island Beach	0	8	0	0	0	0	0	0	4	0	0	0	0	0	6	0	AA
SEGMENT 13: TALOFOFO																		
NEB 07	Hidden Beach	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	AA
NEB 03	Jeffrey's Beach	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	AA
CNMI-104	Jeffrey's Beach Reef Flat	*	*	*	*	*	*	*	*	0	0	0	0	*	0	0	0	AA
NEB 04	Old Man By the Sea	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	AA
SEGMENT 14: KAGMAN																		
NEB 05	Marine Beach	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	AA
CNMI-29	Tank Beach Reef Flat	*	*	0	*	*	0	*	0	0	0	0	0	*	0	0	0	AA
NEB 06	Tank Beach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	AA
SEB 01	Forbidden Island	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	AA
SEB 02	North Laolao Beach	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	AA
ARRA B2	North Laolao Reef Flat	*	*	*	0	0	0	0	0	8	0	0	0	0	8	0	0	AA
ARRA B5	North Laolao Reef Flat	*	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	AA
ARRA B8	North Laolao Reef Flat	*	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	AA
SEGMENT 15: LAO LAO																		
CNMI-21	Central Laolao Reef flat	*	*	0	*	*	0	*	0	0	0	0	0	0	0	0	0	AA
SEB 03	South Laolao Beach	0	4	0	0	3	0	0	0	0	0	0	0	3	0	0	0	AA
ARRA C2	South Laolao Reef Flat	*	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	AA
ARRA C5	South Laolao Reef Flat	*	*	*	0	0	0	0	0	8	0	0	0	0	0	0	0	AA
ARRA C8	South Laolao Reef Flat	*	*	*	0	0	0	0	0	8	0	0	0	0	0	0	0	AA
SEGMENT 16: DAN DAN																		
CNMI 72	DanDan Reef Flat	*	*	0	*	*	0	*	0	0	0	0	0	*	0	*	0	AA
SEGMENT 17A: ISLEY (WEST)																		
SEB 06	Unai Dangkulo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	AA
SEGMENT 17B: ISLEY (EAST)																		
SEB 04	Obyan Beach	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	AA
CNMI-30	Obyan Beach Reef Flat	*	*	0	*	*	0	*	0	0	0	0	0	*	0	0	0	AA
SEB 05	Ladder Beach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	AA

TABLE I-g (cont.). 2024 Dissolved Oxygen (DO%) Exceedances of CNMI Water Quality Standards in Saipan and Mañagaha Coastal Waters

Sampling Station ID	Sampling Station Name	% DO Exceedences																
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Segment Class
SEGMENT 18A: SUSUPE (NORTH)																		
WB 24	Chalan Laulau Beach	13	33	27	33	34	35	22	73	50	42	30	18	37	37	48	65	AA
WB 25	San Jose Beach	7	15	10	19	13	8	10	53	25	27	13	5	20	10	10	12	AA
WB 26	Civic Center Beach	7	19	12	15	8	4	8	35	23	27	15	9	16	6	15	14	AA
WB 27	Saipan World Resort	3	15	6	15	6	2	8	33	19	12	11	5	2	2	4	10	AA
WB 28	Kanoa Resort	4	8	2	17	0	2	6	29	12	10	9	5	0	5	6	8	AA
WB 29	Community School Beach	4	13	4	13	2	0	6	29	15	17	9	2	6	2	4	10	AA
SEGMENT 18B: SUSUPE (SOUTH)																		
WB 30	Sugar Dock	7	15	4	13	15	2	17	39	25	40	23	9	12	6	6	6	AA
WB 31	CK Dist #2 Drainage	2	8	2	6	4	0	6	15	21	25	6	5	4	2	6	3	AA
WB 32	CK Dist #4 Lally Beach	2	8	4	4	0	0	6	17	19	10	6	7	2	0	4	8	AA
WB 33	Chalan Piao Beach	2	4	4	4	0	0	3	27	23	10	11	5	0	2	0	10	AA
WB 34	Hopwood School Beach	7	6	4	4	0	0	6	24	27	19	6	3	4	6	2	6	AA
WB 35	San Antonio Beach	4	8	5	6	0	0	6	7	17	13	6	5	4	2	0	2	AA
WB 36	PIC Beach	4	4	0	6	0	0	2	4	21	19	4	0	2	2	0	2	AA
WB 37	San Antonio Lift Stn.	4	6	0	10	0	0	4	9	19	21	4	0	0	2	0	0	AA
SEGMENT 19A: WEST TAKPOCHAU (NORTH)																		
WB 10	DPW Channel Bridge	4	8	6	6	10	0	0	8	8	4	4	2	4	6	2	0	A
SEGMENT 19B: WEST TAKPOCHAU (CENTRAL)																		
WB 11.2	Eloy Inos Peace Park	8	18	12	10	14	10	11	28	22	18	23	10	0	2	6	2	A
WB 13	Outer Cove Marina	0	2	6	2	4	0	0	0	2	0	0	7	2	2	4	0	A
WB 12	Smiling Cove Marina	4	18	6	12	10	2	11	12	29	17	11	16	4	4	4	0	A
WB 12.1	American Memorial Park Drainage	2	10	6	10	8	0	4	9	26	15	10	2	6	0	6	0	A
WB 14	Micro Beach	0	2	2	2	4	2	0	2	4	2	2	2	0	0	2	2	AA
WB 15	Hyatt Hotel	2	6	2	2	4	0	2	0	6	8	2	2	2	0	2	0	AA
WB 16	Fiesta Resort	0	6	2	0	4	0	0	2	2	8	0	0	0	0	2	0	AA
WB 17	Drainage #1	0	10	6	4	4	0	0	2	13	6	4	0	0	0	2	2	AA
WB 18	Imperial Pacific Resort	2	4	4	6	4	0	0	2	4	0	0	0	2	0	2	0	AA
WB 19	GrandVrio Hotel	11	19	15	29	30	21	6	55	38	45	17	12	27	8	12	0	AA
WB 20	Drainage #2	9	13	19	29	31	19	23	59	37	40	29	9	20	4	8	4	AA

TABLE I-g (cont.). 2024 Dissolved Oxygen (DO%) Exceedances of CNMI Water Quality Standards in Saipan and Mañagaha Coastal Waters

Sampling Station ID	Sampling Station Name	% DO Exceedences																
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Segment Class
SEGMENT 19C: WEST TAKPOCHAU (SOUTH)																		
WB 21	Garapan Fishing Dock	18	31	35	33	34	31	15	50	45	37	30	19	22	18	25	25	AA
WB 23	Drainage #3	13	21	12	25	21	17	11	33	23	35	41	11	14	14	19	16	AA
WB 22	Garapan Beach	11	29	17	19	28	25	18	67	40	52	45	16	37	47	46	55	AA
SEGMENT 20A: ACHUGAO (NORTH)																		
WB 03	Kensington Hotel	2	12	2	4	12	4	8	4	19	21	6	9	12	8	14	6	AA
WB 04	San Roque School Beach	2	6	8	4	10	2	6	2	13	8	9	0	2	0	10	0	AA
WB 05	Plumeria Hotel	10	8	6	2	6	0	0	4	4	4	7	0	2	2	8	0	AA
WB 06	Aqua Resort Hotel	2	6	4	4	8	0	0	2	4	8	7	0	4	2	6	0	AA
SEGMENT 20B: ACHUGAO (SOUTH)																		
WB 07	Tanapag Meeting Hall	2	8	8	10	6	0	4	8	15	10	9	5	4	8	6	0	AA
WB 08	Central Repair Shop	4	16	13	21	19	16	10	16	16	27	13	7	14	14	10	0	A
WB 09	Sea Plane Ramp	2	8	6	4	4	0	3	2	4	0	2	5	0	4	4	0	A
SEGMENT 21: AS MATUIS																		
WB 01	Wing Beach	0	2	0	0	0	0	0	2	2	10	2	5	4	6	17	4	AA
CNMI-19	Wing Beach Reef Flat	*	*	0	*	*	0	*	0	0	0	0	0	0	0	0	0	AA
WB 02	Pau-Pau Beach	6	18	10	10	10	8	6	12	35	37	11	10	16	24	19	6	AA
SEGMENT 22: BANADERU																		
NEB 01	Grotto Cave	0	8	0	0	0	0	0	5	0	0	0	0	3	0	2	6	AA

TABLE I-g (cont.). 2024 Dissolved Oxygen (DO%) Exceedances of CNMI Water Quality Standards in Saipan and Mañagaha Coastal Waters

Sampling Station ID	Sampling Station Name	% DO Exceedences																
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Segment Class
SEGMENT 23: MANAGAHA																		
MG 01	Dock	0	4	5	7	0	11	0	0	4	0	3	5	0	7	8	8	AA
MG 02	Swimming Area A	0	4	0	0	0	4	0	0	4	0	0	5	4	3	0	8	AA
MG 03	Swimming Area A	0	8	5	0	0	4	0	0	8	7	0	0	0	3	0	4	AA
MG 04	Swimming Area B	0	0	0	0	0	4	0	0	0	0	0	0	4	3	4	0	AA
MG 05	Managaha Beach	0	0	0	0	0	0	0	0	4	0	0	0	4	3	4	0	AA
MG 06	Managaha Beach	0	0	0	4	0	0	0	0	0	4	3	0	4	3	8	0	AA
MG 07	Managaha Beach	0	0	0	0	0	0	0	0	4	4	0	0	4	3	4	0	AA
MG 08	Beach Near Statue	0	0	0	4	0	4	0	0	4	0	0	0	4	3	0	4	AA
MG 09	Managaha Beach	0	0	0	0	0	0	0	0	4	0	0	5	0	3	0	0	AA
MG 10	Managaha Beach	0	0	0	0	0	0	0	0	4	0	0	9	8	3	4	4	AA
MG 11	Next to Dock	0	4	0	0	0	0	0	0	4	4	3	0	4	3	0	8	AA

TABLE I-h. 2024 Dissolved Oxygen (DO%) Exceedances of CNMI Water Quality Standards in Northern Islands Coastal Waters

Sample Station ID	Sampling Station Name	D.O. % Violations				
		2020	2021	2022	2023	Segment Class
SEGMENT 24: FARALLON DE MEDINILLA (No'os)						
*	Farallon de Medinilla	*	*	*	*	AA
SEGMENT 25: ANATAHAN						
*	Anatahan	*	*	*	*	A
SEGMENT 26: SARIGAN						
*	Sarigan	*	*	*	*	AA
SEGMENT 27: GUGUAN						
*	Guguan	*	*	*	*	AA
SEGMENT 28: ALAMAGAN						
*	Alamagan	*	*	*	*	AA
SEGMENT 29: PAGAN						
PAG-01	North of Gold Beach	*	*	*	*	AA
PAG-02	Coast (west of Church)	*	*	*	*	AA
PAG-03	NE of the tip of the Southern volcanoes	*	*	*	*	AA
PAG-04	West coast across from Sanhalom	*	*	*	*	AA
PAG-05	West coast across from the Southern volcanoes	*	*	*	*	AA
PAG-06	Southern most beach of the Southern Volcanoes	*	*	*	*	AA
PAG-07	East of Ancient Village	*	*	*	*	AA
PAG-08	West coast of Maru Mt.	*	*	*	*	AA
PAG-09	Coastline east of North Beach	*	*	*	*	AA
PAG-10	Isthmus NW coast	*	*	*	*	AA
PAG-11	Eastern coastline of the Northern volcano	*	*	*	*	AA
PAG-12	South beach (of the Northern Volcano)	*	*	*	*	AA
PAG-13	SE beach of Northern volcano	*	*	*	*	AA
PAG-14	Coastline north of PAG-04 and south of PAG-15	*	*	*	*	AA
PAG-15	Northern most coast of the Norhern volcano	*	*	*	*	AA
PAG-16	NW of Togari Rock on the Northern volcano	*	*	*	*	AA
PAG-17	West coast of Togari Mt.	*	*	*	*	AA
PAG-18	Isthmus SW coast	*	*	*	*	AA
*	Green beach of Shomushon Bay (west of Village)	*	0	*	*	AA
*	Red beach (Apaan Bay's black sand beach)	*	0	*	*	AA
*	Blue beach (west of Laguna Sahniyong)	*	0	*	*	AA
*	North beach (northern most beach)	*	*	*	*	AA
*	Gold beach (shopping mall)	*	0	*	*	AA
*	South beach (of the Northern volcano)	*	0	*	*	AA
*	Palaksi "White Sands" (cut east of South Beach)	*	0	*	*	AA

TABLE I-h (cont.). 2024 Dissolved Oxygen (DO%) Exceedances of CNMI Water Quality Standards in Northern Islands Coastal Waters

Sample Station ID	Sampling Station Name	D.O. % Violations				
		2020	2021			Segment Class
	SEGMENT 30: AGRIHAN					
*	Agrihan	*	*	*	*	AA
	SEGMENT 31: ASUNCION					
*	Asuncion	*	*	*	*	AA
	SEGMENT 32: MAUG					
*	Maug	*	*	*	*	AA
	SEGMENT 33: FARALLON DE PAJAROS (Uracas)					
*	Pajaros	*	*	*	*	AA
* Not yet established or not sampled.						

TABLE I-i. 2024 pH Exceedances of CNMI Water Quality Standards in Rota Coastal Waters

Sampling Station ID	Sampling Station Name	pH % Exceedences												Segment Class
		2012	2013	****2014	2015	2016	2017	2018	****2019	2020	2021	2022	2023	
SEGMENT 1: DUGI/GAMPAPA/CHENCHON														
*	*	*	*	*	*	*	*	*	*	*	*	*	*	AA
SEGMENT 2: SABANA/TALAKAYA/PALIE														
R1	Coral Garden	*	*	*	*	*	*	*	*	*	*	*	*	AA
R2	Kokomo Beach Club	0	0	33	0	0	0	0	17	9	0	4	0	AA
R13	Talakhaya	*	*	*	*	0	0	5	8	4	0	*	*	AA
SEGMENT 3: SONGSONG														
R3	Mobil Storm Drain	0	0	30	0	0	0	5	13	0	0	0	5	A
R4	East Harbor Dock	0	0	30	0	0	0	5	0	0	0	0	5	A
R5	Teweksberry Beach	0	0	38	5	0	0	0	0	0	0	0	0	AA
R6	West Harbor Marina	4	0	33	0	0	0	0	4	0	0	0	0	A
R7	Dist #2 Storm Drain	0	0	19	0	0	0	5	4	0	0	0	0	AA
R8	Dist #1 Storm Drain	0	0	33	0	0	0	0	0	0	0	0	0	AA
SEGMENT 4: UYULANHULO/TETETO														
R9	Veterans Memorial	4	0	38	0	0	0	5	0	0	0	0	0	AA
R10	Teteto Beach	0	0	43	0	0	0	5	8	0	0	0	0	AA
R11	Guata Beach	0	0	29	0	0	0	5	17	0	0	0	5	AA
SEGMENT 5: CHALIAT/TALO														
R12	Swimming Hole	4	0	39	0	4	0	0	30	4	0	0	5	AA

**** 2014 pH results were due to contaminated calibration solution. In 2019 the pH results were considered erroneous due to an aging probe. It was replaced in FY2020; explaining the sudden improvement in pH levels.

TABLE I-j. 2024 pH Exceedances of CNMI Water Quality Standards in Tinian Coastal Waters

Sampling Station ID	Sampling Station Name	pH % Exceedences												
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Segment Class
SEGMENT 6: AGUIGAN														
AGU 2	Goat Island	*	*	*	*	*	*	0	*	*	*	*	*	AA
SEGMENT 7: MASALOK														
T1	Unai Masalok Beach	0	0	0	0	0	0	4	13	0	7	0	0	AA
T2	Unai Dangkolo	0	0	0	0	0	4	12	14	0	10	0	0	AA
SEGMENT 9: MAKPO														
T7	Tachogna Beach	0	0	0	0	8	12	19	8	0	7	0	5	AA
T8	Taga Beach	0	0	5	0	0	8	11	9	0	7	0	0	AA
T10	Jones (Kammer) Beach	0	0	0	0	0	0	4	8	0	4	0	0	AA
SEGMENT 9H: MAKPO HARBOR														
T9A	Makpo Harbor	0	0	0	0	0	0	0	8	0	7	0	0	A
SEGMENT 10: PUNTAN DIAPLOMANIBOT														
T5	Leprosarium I	0	0	0	0	0	0	4	8	8	7	0	0	AA
T6	Leprosarium II	0	0	0	0	0	0	4	8	4	10	0	0	AA
SEGMENT 11: PUNTAN TAHGONG														
T3	Unai Babui	0	0	0	0	0	0	16	0	0	7	0	0	AA
T4	Unai Chulu	0	0	0	0	0	0	7	14	0	10	0	0	AA
T11	Chiget	*	*	*	*	*	*	*	*	*	*	0	0	AA

TABLE I-k. 2024 pH Exceedances of CNMI Water Quality Standards in Saipan and Mañagaha Coastal Waters

Sampling Station ID	Sampling Station Name	% pH Exceedences												Segment Class	Comments
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
	SEGMENT 12: KALABERA														
NEB 02	Bird Island Beach	0	4	0	7	4	7	5	0	4	3	0	0	AA	
	SEGMENT 13: TALOFOFO														
NEB 07	Hidden Beach			0	13	4	3	13	0	0	8	0	0	AA	
NEB 03	Jeffrey's Beach			0	7	0	3	0	0	7	14	0	4	AA	
CNMI-104	Jeffrey's Beach Reef flat	*	*	*	*	*	0	0	0	*	0	0	0	AA	
NEB 04	Old Man By the Sea			0	3	4	3	8	5	0	10	0	0	AA	
	SEGMENT 14: KAGMAN														
NEB 05	Marine Beach			0	0	4	0	12	0	0	13	0	0	AA	
CNMI-29	Tank Beach Reef flat	*	0	*	0	0	0	0	0	*	0	0	0	AA	
NEB 06	Tank Beach			0	0	4	3	8	0	0	0	0	0	AA	
SEB 01	Forbidden Island			*	*	*	*	*	*	*	*	*	*	AA	
SEB 02	North Laolao Beach			0	0	0	0	4	0	0	0	0	0	AA	
ARRA B2	North Laolao Beach			0	0	8	0	0	0	0	8	0	0	AA	
ARRA B5	North Laolao Beach			0	0	0	0	0	13	0	0	0	0	AA	
ARRA B8	North Laolao Beach			0	11	0	0	0	13	0	0	0	0	AA	
	SEGMENT 15: LAO LAO														
CNMI-21	Central LaoLao Beach reef flat	*	0	*	0	0	0	0	0	0	0	0	0	AA	
SEB 03	South Laolao Beach			0	0	0	0	4	0	0	0	0	0	AA	
ARRA C2	South Laolao Beach			0	0	0	0	0	0	0	0	11	0	AA	
ARRA C5	South Laolao Beach			0	0	0	0	0	0	0	0	0	0	AA	
ARRA C8	South Laolao Beach			0	0	0	0	0	0	0	8	11	0	AA	
	SEGMENT 16: DAN DAN														
CNMI-72	DanDan Reef Flat	*	0	*	0	0	0	0	0	*	0	*	0	AA	
	SEGMENT 17A: ISLEY (WEST)														
SEB 06	Unai Dangkulo			0	0	4	3	23	0	0	0	0	0	AA	
	SEGMENT 17B: ISLEY (EAST)														
SEB 04	Obyan Beach			0	0	0	3	12	0	0	0	0	0	AA	
CNMI-30	Obyan Beach Reef Flat	*	0	*	0	0	0	50	0	*	0	0	0	AA	
SEB 05	Ladder Beach			0	0	0	0	23	0	0	0	0	0	AA	
	SEGMENT 18A: SUSUPE (NORTH)														
WB 24	Chalan Laulau Beach	4	4	2	14	6	8	20	26	18	10	10	6	AA	pH Low
WB 25	San Jose Beach	6	2	2	2	0	6	8	7	4	0	2	0	AA	
WB 26	Civic Center Beach	8	0	2	2	0	6	4	5	2	4	0	0	AA	
WB 27	Saipan World Resort	4	0	0	0	0	4	6	10	2	2	0	0	AA	
WB 28	Kanoa Resort	4	0	2	0	0	4	2	5	4	5	4	0	AA	
WB 29	Community School Beach	4	0	0	0	0	4	2	7	2	4	0	0	AA	

TABLE I-k (cont.). 2024 pH Exceedances of CNMI Water Quality Standards in Saipan and Mañagaha Coastal Waters

Sampling Station ID	Sampling Station Name	% pH Exceedences													
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Segment Class	Comments
	SEGMENT 18B: SUSUPE (SOUTH)														
WB 30	Sugar Dock	2	0	0	2	0	4	4	12	2	2	2	0	AA	
WB 31	CK Dist #2 Drainage	2	0	2	6	0	4	6	7	4	2	2	1	AA	
WB 32	CK Dist #4 Lally Beach	2	0	2	6	0	2	4	7	2	2	0	4	AA	
WB 33	Chalan Piao Beach	4	0	0	0	2	0	4	7	2	2	0	4	AA	
WB 34	Hopwood School Beach	4	0	0	2	0	4	4	5	0	2	0	0	AA	
WB 35	San Antonio Beach	6	0	0	0	0	2	6	2	2	2	0	2	AA	
WB 36	Pacific Island Club Beach	6	0	2	2	0	8	4	2	4	2	2	2	AA	
WB 37	San Antonio Lift Station	6	0	2	2	2	4	6	5	0	4	0	1	A	
	SEGMENT 19A: WEST TAKPOCHAU (NORTH)														
WB 10	DPW Channel Bridge	2	0	6	15	8	10	4	5	4	4	0	2	A	
	SEGMENT 19B: WEST TAKPOCHAU (CENTRAL)														
WB 11.2	Eloy Inos Peace Park	2	0	7	3	7	2	11	12	2	0	0	0	A	
WB 13	Outer Cove Marina	0	2	3	2	2	2	8	7	0	0	0	0	A	
WB 12	Smiling Cove Marina	0	4	3	6	4	2	2	5	0	0	2	0	A	
WB 12.1	American Memorial Park Drainag	0	0	4	0	3	2	4	5	0	0	0	0	A	
WB 14	Micro Beach	0	4	10	0	6	0	4	2	0	0	0	0	AA	
WB 15	Hyatt Hotel	0	6	8	2	4	2	0	5	0	0	0	4	AA	
WB 16	Fiesta Resort	0	2	6	2	4	2	8	2	0	0	0	0	AA	
WB 17	Drainage #1	0	0	0	4	8	0	0	0	0	0	2	2	AA	
WB 18	Imperial Pacific Resort	0	0	6	4	6	0	0	0	0	0	0	0	AA	
WB 19	GrandVrio Hotel	4	0	2	2	8	23	23	18	2	0	2	0	AA	
WB 20	Drainage #2	4	0	0	2	0	12	20	9	0	0	0	0	AA	
	SEGMENT 19C: WEST TAKPOCHAU (SOUTH)														
WB 21	Garapan Fishing Dock	4	2	0	6	4	19	12	17	2	2	0	2	AA	
WB 23	Drainage #3	4	4	3	10	10	13	17	21	6	6	6	4	AA	
WB 22	Garapan Beach	6	2	4	21	6	21	22	19	12	10	10	24	AA	
	SEGMENT 20A: ACHUGAO (NORTH)														
WB 03	Kensington Hotel	0	0	10	2	4	4	0	7	0	2	3	0	AA	
WB 04	San Roque School Beach	0	8	3	2	4	0	0	5	0	0	0	0	AA	
WB 05	Plumeria Hotel	2	4	0	2	4	0	0	2	0	0	2	0	AA	
WB 06	Aqua Resort Hotel	0	4	6	2	4	2	0	2	0	0	0	2	AA	

TABLE I-k (cont.). 2024 pH Exceedances of CNMI Water Quality Standards in Saipan and Mañagaha Coastal Waters

Sampling Station ID	Sampling Station Name	% pH Exceedences												Segment Class	Comments
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
	SEGMENT 20B: ACHUGAO (SOUTH)														
WB 07	Tanapag Meeting Hall	2	2	6	0	2	10	4	5	0	0	2	0	AA	
WB 08	Central Repair Shop	2	0	3	3	4	3	4	5	0	0	0	0	A	
WB 09	Sea Plane Ramp	0	2	3	2	4	2	2	2	2	0	0	0	A	
	SEGMENT 21: AS MATUIS														
WB 01	Wing Beach	2	4	2	0	8	12	8	9	2	2	2	0	AA	
CNMI-19	Wing Beach Reef Flat	*	0	*	0	0	0	0	0	0	0	0	0	AA	
WB 02	Pau-Pau Beach	0	4	6	0	2	6	6	9	2	2	2	0	AA	
	SEGMENT 22: BANADERU														
NEB 01	Grotto Cave	0	0	0	7	4	10	8	6	5	2	0	0	AA	

Sampling Station ID	Sampling Station Name	% pH Exceedences												Segment Class	Comments
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
	SEGMENT 23: MANAGAHA														
MG 01	Dock	0	3	0	0	4	15	10	0	0	0	0	0	AA	
MG 02	Swimming Area A	0	7	0	0	8	4	0	0	0	0	0	0	AA	
MG 03	Swimming Area A	0	3	0	0	8	0	0	0	0	0	4	0	AA	
MG 04	Swimming Area B	0	3	0	0	4	0	3	0	0	0	0	0	AA	
MG 05	Managaha Beach	0	3	0	0	4	0	3	0	0	0	0	0	AA	
MG 06	Managaha Beach	0	3	0	0	8	0	0	0	0	0	0	0	AA	
MG 07	Managaha Beach	0	3	0	0	8	0	0	0	0	0	0	0	AA	
MG 08	Beach Near Statue	0	3	0	0	8	0	0	0	0	0	0	0	AA	
MG 09	Managaha Beach	0	3	0	0	8	0	0	0	0	0	0	0	AA	
MG 10	Managaha Beach	0	3	0	0	4	0	0	0	0	0	0	0	AA	
MG 11	Next to Dock	0	3	0	0	4	0	0	0	0	0	0	0	AA	

TABLE I-l. 2024 pH Exceedances of CNMI Water Quality Standards in Northern Islands Coastal Waters

Sample Station ID	Sampling Station Name	pH % Violations				
		2020	2021	2022	2023	Segment Class
SEGMENT 24: FARALLON DE MEDINILLA (No'os)						
*	Farallon de Medinilla	*	*	*	*	AA
SEGMENT 25: ANATAHAN						
*	Anatahan	*	*	*	*	A
SEGMENT 26: SARIGAN						
*	Sarigan	*	*	*	*	AA
SEGMENT 27: GUGUAN						
*	Guguan	*	*	*	*	AA
SEGMENT 28: ALAMAGAN						
*	Alamagan	*	*	*	*	AA
SEGMENT 29: PAGAN						
PAG-01	North of Gold Beach	*	*	*	*	AA
PAG-02	Coast (west of Church)	*	*	*	*	AA
PAG-03	NE of the tip of the Southern volcanoes	*	*	*	*	AA
PAG-04	West coast across from Sanhalom	*	*	*	*	AA
PAG-05	West coast across from the Southern volcanoes	*	*	*	*	AA
PAG-06	Southern most beach of the Southern Volcanoes	*	*	*	*	AA
PAG-07	East of Ancient Village	*	*	*	*	AA
PAG-08	West coast of Maru Mt.	*	*	*	*	AA
PAG-09	Coastline east of North Beach	*	*	*	*	AA
PAG-10	Isthmus NW coast	*	*	*	*	AA
PAG-11	Eastern coastline of the Northern volcano	*	*	*	*	AA
PAG-12	South beach (of the Northern Volcano)	*	*	*	*	AA
PAG-13	SE beach of Northern volcano	*	*	*	*	AA
PAG-14	Coastline north of PAG-04 and south of PAG-15	*	*	*	*	AA
PAG-15	Northern most coast of the Norhern volcano	*	*	*	*	AA
PAG-16	NW of Togari Rock on the Northern volcano	*	*	*	*	AA
PAG-17	West coast of Togari Mt.	*	*	*	*	AA
PAG-18	Isthmus SW coast	*	*	*	*	AA
*	Green beach of Shomushon Bay (west of Village)	*	0	*	*	AA
*	Red beach (Apaan Bay's black sand beach)	*	0	*	*	AA
*	Blue beach (west of Laguna Sahniyong)	*	0	*	*	AA
*	North beach (northern most beach)	*	*	*	*	AA
*	Gold beach (shopping mall)	*	0	*	*	AA
*	South beach (of the Northern volcano)	*	0	*	*	AA
*	Palaksi "White Sands" (cut east of South Beach)	*	0	*	*	AA

TABLE I-l (cont.). 2024 pH Exceedances of CNMI Water Quality Standards in Northern Islands Coastal Waters

Sample Station ID	Sampling Station Name	pH % Violations				
		2020	2021	2022	2023	Segment Class
	SEGMENT 30: AGRIHAN					
*	Agrihan	*	*	*	*	AA
	SEGMENT 31: ASUNCION					
*	Asuncion	*	*	*	*	AA
	SEGMENT 32: MAUG					
*	Maug	*	*	*	*	AA
	SEGMENT 33: FARALLON DE PAJAROS (Uracas)					
*	Pajaros	*	*	*	*	AA
* Not yet established or not sampled.						

TABLE I-m. 2024 Rota Coastal Nutrient Exceedances of CNMI WQS

Sampling Station ID	Sampling Station Name	Nutrient % Exceedences																Segment Class
		2016		2017		2018		2019		2020		2021		2022		2023		
		PO_4	NO_3	PO_4	NO_3	PO_4	NO_3	PO_4	NO_3	PO_4	NO_3	PO_4	NO_3	PO_4	NO_3	PO_4	NO_3	
SEGMENT 1: DUGI/GAMPAPA/CHENCHON																		
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	AA
SEGMENT 2: SABANA/TALAKAYA/PALIE																		
R1	Coral Garden	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	AA
R2	Kokomo Beach Club	*	*	0	0	0	0	0	0	0	0	0	0	0	0	*	*	AA
R13	Talakhaya	*	*	0	0	0	0	0	0	0	0	*	*	*	*	*	*	AA
SEGMENT 3: SONGSONG																		
R3	Mobil Storm Drainage	*	*	0	0	0	0	0	0	0	0	0	0	0	0	*	*	A
R4	East Harbor Dock	*	*	0	0	0	0	0	0	0	0	0	0	0	0	*	*	A
R5	Teweksberry Beach	*	*	0	0	0	0	0	0	0	0	0	0	0	0	*	*	AA
R6	West Harbor Marina	*	*	0	0	0	0	20	0	0	0	0	0	0	0	*	*	A
R7	Dist #2 Storm Drain	*	*	0	0	0	0	0	0	0	0	0	0	0	0	*	*	AA
R8	Dist #1 Storm Drain	*	*	0	0	0	0	0	0	0	0	0	0	0	0	*	*	AA
SEGMENT 4: UYULANHULO/TETETO																		
R9	Veterans Memorial	*	*	0	0	0	0	0	0	0	0	0	0	0	0	*	*	AA
R10	Teteto Beach	*	*	0	0	0	0	0	0	0	0	0	0	0	0	*	*	AA
R11	Guata Beach	*	*	0	0	0	0	0	0	0	0	0	0	100	0	*	*	AA
SEGMENT 5: CHALIAT/TALO																		
R12	Swimming Hole	*	*	0	100	0	0	0	20	0	40	0	0	0	0	*	*	AA

TABLE I-n. 2024 Tinian and Aguiguan Coastal Nutrient Exceedances of CNMI WQS

Sampling Station ID	Sampling Station Name	Tinian Nutrient % Exceedences																Segment Class
		2016		2017		2018		2019		2020		2021		2022		2023		
		PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	
SEGMENT 6: AGUIGAN																		
AGU 2	Goat Island	*	*	*	*	0	0	*	*	*	*	*	*	*	*	*	*	AA
SEGMENT 7: MASALOK																		
T1	Unai Masalok Beach	*	*	*	*	0	0	33	17	0	0	0	9	14	0	0	0	AA
T2	Unai Dangkolo	*	*	*	*	0	75	17	67	0	57	0	27	0	0	0	0	AA
SEGMENT 9: MAKPO																		
T7	Tachogna Beach	*	*	*	*	0	0	14	0	0	14	0	0	0	0	0	0	AA
T8	Taga Beach	*	*	*	*	0	0	29	14	0	0	0	0	13	0	0	0	AA
T10	Jone's (Kammer) Beach	*	*	*	*	0	0	57	0	0	0	0	0	0	0	0	0	AA
SEGMENT 9H: MAKPO HARBOR																		
T9A	Harbor	*	*	*	*	0	0	14	0	0	0	0	0	0	0	0	0	A
SEGMENT 10: PUNTAN DIAPLOMANIBOT																		
T5	Leprosarium I	*	*	*	*	0	25	29	29	0	43	0	9	0	0	0	0	AA
T6	Leprosarium II	*	*	*	*	0	0	14	14	0	43	0	9	0	0	0	0	AA
SEGMENT 11: PUNTAN TAHGONG																		
T3	Unai Babui	*	*	*	*	0	0	17	17	0	29	10	0	0	0	0	0	AA
T4	Unai Chulu	*	*	*	*	0	0	17	17	0	0	9	9	0	0	0	0	AA
T11	Chiget Beach	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	AA

TABLE I-o. 2024 Saipan and Mañagaha Coastal Nutrient Exceedances of CNMI WQS

Sampling Station ID	Sampling Station Name	Coastal Marine Waters % Nutrient Exceedences																Segment Class
		2016		2017		2018		2019		2020		2021		2022		2023		
		PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	
	SEGMENT 12: KALABERA																	
NEB 02	Bird Island Beach	*	*	0	0	0	17	33	0	22	0	0	0	25	0	0	0	AA
	SEGMENT 13: TALOFOFO																	
NEB 07	Hidden Beach	*	*	0	0	0	17	17	0	0	0	0	0	0	0	0	0	AA
NEB 03	Jeffrey's Beach	*	*	0	0	0	0	17	0	0	0	8	0	13	0	0	0	AA
CNMI-104	Jeffrey's Beach Reef Flat	0	0	*	*	0	0	0	0	*	*	0	0	0	0	*	*	AA
NEB 04	Old Man By the Sea	*	*	0	0	0	17	33	0	11	0	0	0	0	0	0	0	AA
	SEGMENT 14: KAGMAN																	
NEB 05	Marine Beach	*	*	0	0	0	17	33	0	0	0	8	0	0	0	0	0	AA
CNMI-29	Tank Beach Reef flat	0	0	*	*	0	0	0	0	*	*	0	0	0	0	*	*	AA
NEB 06	Tank Beach	*	*	0	0	0	0	33	0	0	0	8	0	13	0	0	0	AA
SEB 01	Forbidden Island	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	AA
SEB 02	North Laolao Beach	*	*	0	0	0	0	17	0	22	10	0	0	0	0	0	0	AA
ARRA B2	North Laolao Beach	9	0	0	0	0	0	14	14	0	0	8	0	0	0	17	17	AA
ARRA B5	North Laolao Beach	0	0	0	0	0	0	14	14	0	0	8	0	0	0	17	0	AA
ARRA B8	North Laolao Beach	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	AA
	SEGMENT 15: LAO LAO																	
CNMI-21	Central Laolao Beach Reef flat	0	0	0	0	0	0	0	0	*	*	0	0	0	0	*	*	AA
SEB 03	South Laolao Beach	*	*	0	0	0	17	33	0	0	0	0	15	0	0	0	0	AA
ARRA C2	South Laolao Beach	9	0	0	0	0	0	0	0	33	0	15	0	0	0	0	0	AA
ARRA C5	South Laolao Beach	9	0	0	0	0	0	17	0	0	0	0	0	0	0	17	0	AA
ARRA C8	South Laolao Beach	0	0	0	0	0	11	14	0	0	0	0	0	0	0	0	0	AA
	SEGMENT 16: DAN DAN																	
CNMI-72	DanDan Reef Flat	0	0	0	0	0	0	0	0	*	*	0	0	*	*	*	*	AA

TABLE I-o (cont.). 2024 Saipan and Mañagaha Coastal Nutrient Exceedances of CNMI WQS

Sampling Station ID	Sampling Station Name	Coastal Marine Waters % Nutrient Exceedences																Segment Class
		2016		2017		2018		2019		2020		2021		2022		2023		
		PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	
	SEGMENT 17A: ISLEY (WEST)																	
SEB 06	Unai Dangkulo	*	*	0	0	0	0	17	0	11	10	0	0	0	0	0	0	AA
	SEGMENT 17B: ISLEY (EAST)																	
SEB 04	Obyan Beach	*	*	0	0	0	0	17	0	0	0	8	8	0	0	0	0	AA
SEB 05	Ladder Beach	*	*	0	0	0	0	17	0	11	10	8	0			0	0	AA
CNMI-30	Ladder Reef Flat	0	0	0	0	0	0	0	0	*	*	0	0	0	0	*	*	AA
	SEGMENT 18A: SUSUPE (NORTH)																	
WB 24	Chalan Laulau Beach	*	*	0	0	0	0	0	0	0	0	25	0	20	0	0	0	AA
WB 25	San Jose Beach	*	*	0	0	0	0	0	0	0	0	0	17	0	0	0	0	AA
WB 26	Civic Center Beach	*	*	0	0	0	0	17	0	13	0	17	17	0	0	20	0	AA
WB 27	Saipan World Resort	*	*	0	0	0	0	17	17	0	0	0	0	0	0	0	0	AA
WB 28	Kanoa Resort	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	AA
WB 29	Saipan Community School Beach	*	*	0	0	0	0	17	17	0	0	0	8	0	0	0	0	AA
	SEGMENT 18B: SUSUPE (SOUTH)																	
WB 30	Sugar Dock	*	*	0	0	0	0	17	0	0	0	8	17	20	0	0	0	AA
WB 31	CK Dist #2 Drainage	*	*	0	0	0	0	17	0	13	0	8	0	0	0	0	0	AA
WB 32	CK Dist #4 Lally Beach	*	*	0	0	0	17	17	0	0	0	8	8	0	0	0	0	AA
WB 33	Chalan Piao Beach	*	*	0	0	17	17	0	17	0	0	0	17	0	0	0	0	AA
WB 34	Hopwood School Beach	*	*	0	0	0	0	17	17	0	0	17	0	0	0	0	0	AA
WB 35	San Antonio Beach	*	*	0	0	0	0	17	0	25	0	0	0	0	0	0	0	AA
WB 36	Pacific Island Club Beach	*	*	0	0	0	0	33	17	0	0	8	0	0	0	0	0	AA
WB 37	San Antonio Lift Station	*	*	0	0	0	33	17	33	0	0	8	8	0	0	0	0	AA
	SEGMENT 19A: WEST TAKPOCHAU (NORTH)																	
WB 10	DPW Channel Bridge	*	*	0	0	0	80	17	17	0	40	0	17	0	0	0	0	**A**

TABLE I-o (cont.). 2024 Saipan and Mañagaha Coastal Nutrient Exceedances of CNMI WQS

Sampling Station ID	Sampling Station Name	Coastal Marine Waters % Nutrient Exceedences																Segment Class
		2016		2017		2018		2019		2020		2021		2022		2023		
		PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	
	SEGMENT 19B: WEST TAKPOCHAU (CENTRAL)																	
WB 11.2	Eloy Inos Peace Park	*	*	0	0	0	0	0	17	0	20	8	0	0	0	0	0	**A**
WB 13	Outer Cove Marina	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**A**
WB 12	Smiling Cove Marina	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**A**
WB 12.1	American Memorial Park Drainag	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**A**
WB 14	Micro Beach	*	*	0	0	0	0	0	0	0	0	0	0	10	0	0	20	AA
WB 15	Hyatt Hotel	*	*	0	0	0	0	17	0	13	0	8	0	0	0	0	0	AA
WB 16	Fiesta Resort	*	*	0	0	0	0	17	0	0	0	8	0	10	0	0	0	AA
WB 17	Drainage #1	*	*	0	0	0	0	17	0	0	0	0	0	10	0	0	0	AA
WB 18	Imperial Pacific Resort	*	*	0	0	0	0	0	17	13	0	8	0	10	0	0	0	AA
WB 19	GrandVrio Hotel	*	*	0	0	0	0	17	0	13	0	8	0	40	0	0	0	AA
WB 20	Drainage #2	*	*	0	0	0	20	0	0	13	0	0	0	10	0	0	0	AA
	SEGMENT 19C: WEST TAKPOCHAU (SOUTH)																	
WB 21	Garapan Fishing Dock	*	*	0	*	0	80	0	33	0	30	25	25	20	40	0	20	AA
WB 23	Drainage #3	*	*	0	100	0	83	0	50	0	60	0	67	0	30	0	60	AA
WB 22	Garapan Beach	*	*	0	50	0	50	0	50	0	40	0	25	20	10	0	40	AA
	SEGMENT 20A: ACHUGAO (NORTH)																	
WB 03	Kensington Hotel	*	*	0	0	0	0	17	0	13	0	18	9	0	0	0	0	AA
WB 04	San Roque School Beach	*	*	0	0	0	0	33	0	0	0	8	0	10	0	0	0	AA
WB 05	Plumeria Hotel	*	*	0	0	0	0	17	0	13	0	8	0	0	10	0	0	AA
WB 06	Aqua Resort Hotel	*	*	0	0	20	0	17	0	0	0	8	0	0	0	0	0	AA
	SEGMENT 20B: ACHUGAO (SOUTH)																	
WB 07	Tanapag Meeting Hall	*	*	0	0	0	0	0	0	0	10	0	0	10	0	0	0	AA
WB 08	Central Repair Shop	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**A**
WB 09	Sea Plane Ramp	*	*	0	0	0	0	0	0	0	0	8	0	0	0	0	0	**A**
	SEGMENT 21: AS MATUIS																	
WB 01	Wing Beach	*	*	0	0	0	0	0	0	0	0	17	0	10	0	0	0	AA
CNMI-19	Wing Beach Reef Flat	0	0	0	0	0	0	0	0	*	*	0	0	0	0	*	*	AA
WB 02	Pau-Pau Beach	*	*	0	0	20	20	0	0	13	0	8	0	0	0	20	0	AA
	SEGMENT 22: BANADERU																	
NEB 01	Grotto Cave	*	*	0	0	0	0	33	0	0	0	15	0	7	0	0	0	AA

TABLE I-o (cont.). 2024 Saipan and Mañagaha Coastal Nutrient Exceedances of CNMI WQS

Sampling Station ID	Sampling Station Name	Coastal Marine Waters % Nutrient Exceedences																Segment Class
		2016		2017		2018		2019		2020		2021		2022		2023		
		PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	
	SEGMENT 23: MANAGAHA																	
MG 01	Dock	*	*	0	0	0	0	0	0	10	0	0	0	11	0	0	0	AA
MG 02	Swimming Area A	*	*	0	0	0	20	0	0	10	0	8	0	0	0	33	0	AA
MG 03	Swimming Area A	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	AA
MG 04	Swimming Area B	*	*	0	0	0	0	0	0	10	0	0	0	0	0	0	0	AA
MG 05	Managaha Beach	*	*	0	0	0	0	0	0	0	0	8	0	0	0	0	0	AA
MG 06	Managaha Beach	*	*	0	0	0	0	0	0	10	0	8	0	0	0	0	0	AA
MG 07	Managaha Beach	*	*	0	0	0	20	20	0	0	0	17	0	11	0	0	0	AA
MG 08	Beach Near Statue	*	*	0	0	0	0	0	0	0	0	0	0	11	0	0	0	AA
MG 09	Managaha Beach	*	*	0	0	0	0	0	0	10	9	0	8	11	0	0	0	AA
MG 10	Managaha Beach	*	*	0	0	0	0	0	20	10	0	8	0	11	0	0	0	AA
MG 11	Next to Dock	*	*	0	0	0	0	0	0	0	0	8	0	0	0	0	0	AA

TABLE I-p. 2024 Northern Islands Coastal Nutrient Exceedances of CNMI WQS

Sample Station ID	Sampling Station Name	Nutrients % Violations								Segment Class
		2020		2021		2022		2023		
		PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	
	SEGMENT 24: FARALLON DE MEDINILLA (No'os)									
*	Farallon de Medinilla	*	*	*	*	*	*	*	*	AA
	SEGMENT 25: ANATAHAN									
*	Anatahan	*	*	*	*	*	*	*	*	A
	SEGMENT 26: SARIGAN									
*	Sarigan	*	*	*	*	*	*	*	*	AA
	SEGMENT 27: GUGUAN									
*	Guguan	*	*	*	*	*	*	*	*	AA
	SEGMENT 28: ALAMAGAN									
*	Alamagan	*	*	*	*	*	*	*	*	AA
	SEGMENT 29: PAGAN									
PAG-01	North of Gold Beach	*	*	*	*	*	*	*	*	AA
PAG-02	Coast (west of Church)	*	*	0	0	*	*	*	*	AA
PAG-03	NE of the tip of the Southern volcanoes	*	*	*	*	*	*	*	*	AA
PAG-04	West coast across from Sanhalom	*	*	0	0	*	*	*	*	AA
PAG-05	West coast across from the Southern volcanoes	*	*	*	*	*	*	*	*	AA
PAG-06	Southern most beach of the Southern Volcanoes	*	*	*	*	*	*	*	*	AA
PAG-07	East of Ancient Village	*	*	*	*	*	*	*	*	AA
PAG-08	West coast of Maru Mt.	*	*	0	0	*	*	*	*	AA
PAG-09	Coastline east of North Beach	*	*	*	*	*	*	*	*	AA
PAG-10	Isthmus NW coast	*	*	*	*	*	*	*	*	AA
PAG-11	Eastern coastline of the Northern volcano	*	*	*	*	*	*	*	*	AA
PAG-12	South beach (of the Northern Volcano)	*	*	0	0	*	*	*	*	AA
PAG-13	SE beach of Northern volcano	*	*	*	*	*	*	*	*	AA
PAG-14	Coastline north of PAG-04 and south of PAG-15	*	*	0	0	*	*	*	*	AA
PAG-15	Northern most coast of the Norhern volcano	*	*	*	*	*	*	*	*	AA
PAG-16	NW of Togari Rock on the Northern volcano	*	*	*	*	*	*	*	*	AA
PAG-17	West coast of Togari Mt.	*	*	0	0	*	*	*	*	AA
PAG-18	Isthmus SW coast	*	*	0	0	*	*	*	*	AA
*	Green beach of Shomushon Bay (west of Village)	*	*	0	0	*	*	*	*	AA
*	Red beach (Apaan Bay's black sand beach)	*	*	0	0	*	*	*	*	AA
*	Blue beach (west of Laguna Sahniyong)	*	*	0	0	*	*	*	*	AA
*	North beach (northern most beach)	*	*	*	*	*	*	*	*	AA
*	Gold beach (shopping mall)	*	*	0	0	*	*	*	*	AA
*	South beach (of the Northern volcano)	*	*	0	0	*	*	*	*	AA
*	Palaksi "White Sands" (cut east of South Beach)	*	*	0	0	*	*	*	*	AA

TABLE I-p (cont.). 2024 Northern Islands Coastal Nutrient Exceedances of CNMI WQS

Sample Station ID	Sampling Station Name	Nutrients % Violations								Segment Class
		2020		2021		2022		2023		
		PO4	NO3	PO4	NO3	PO4	NO3	PO4	NO3	
	SEGMENT 30: AGRIHAN									
*	Agrihan	*	*	*	*	*	*	*	*	AA
	SEGMENT 31: ASUNCION									
*	Asuncion	*	*	*	*	*	*	*	*	AA
	SEGMENT 32: MAUG									
*	Maug	*	*	*	*	*	*	*	*	AA
	SEGMENT 33: FARALLON DE PAJAROS (Uracas)									
*	Pajaros	*	*	*	*	*	*	*	*	AA
* Not yet established or not sampled.										

APPENDIX II: Freshwater Stream Water Quality Data for 2024 Assessments

TABLE II-a. 2024 Rota Talakhaya Freshwater Stream Enterococci Exceedances of CNMI WQS

Enterococci Percent Violations								
Sample Station ID	2017	**2018	2019	2020	2021	2022	2023	Segment Class
SEGMENT 20B: TALAKHAYA								
TK0	*	100	71	45	*	*	*	1
TK1	*	100	81	50	*	*	*	1
TK2	*	91	88	27	*	*	*	1
TK3	*	100	76	64	*	*	*	1
TK4	*	100	65	27	*	*	*	1

* Not sampled, ** Badland revegetation project beings

TABLE II-b. 2024 Saipan Freshwater Stream Enterococci Exceedances of CNMI WQS

Sample Station ID	Sampling Station Name	Enterococci % Violations											Segment Class
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
SEGMENT 13: TALOFOFO													
TAL03_L	Lower 3 Stream	**	100	100	50	*	*	*	*	*	*	*	1
TAL01_L	Lower 1 Stream	**	100	100	100	*	*	*	*	*	*	*	1
TAL02_L	Lower 2 Stream	**	100	67	100	*	*	*	*	*	*	*	1
TAL02_U	Upper 2 Stream	**	80	67	100	*	*	*	*	*	*	*	1
SEGMENT 14: KAGMAN													
KAG01_L	Lower 1 Stream	**	50	100	*	*	*	*	*	*	*	*	1
KAG01_U	Upper 1 Stream	**	100	100	*	*	*	*	*	*	*	*	1
KAG02_L	Lower 2 Stream	**	100	*	*	*	*	*	*	*	*	*	1
KAG02_M	Middle 2 Stream	**	100	*	*	*	*	*	*	*	*	*	1
KAG02_UK1	Upper 2 Stream	**	50	*	*	*	*	*	*	*	*	*	1
SEGMENT 15: LAO LAO													
LAO03_U	Upper 3 Stream	**	33	*	*	*	*	*	*	*	*	*	1
LAO04_U	Upper 4 Stream	**	66	*	*	*	*	*	*	*	*	*	1
LAO04_M	Middle 4 Stream	**	66	*	*	*	*	*	*	*	*	*	1
LAO03_M	Middle 3 Stream	**	66	*	*	*	*	*	*	*	*	*	1
LAO01_U	Upper 1 Stream	**	*	*	*	*	*	*	*	*	*	*	1
LAO01_UA	Upper 1A Stream	**	33	*	*	*	*	*	*	*	*	*	1
LAO01_L	Lower 1 Stream	**	100	*	*	*	*	*	*	*	*	*	1
LAO02_L	Lower 2 Stream	**	100	*	*	*	*	*	*	*	*	*	1
LAO03_L	Lower 3 Stream	**	66	*	*	*	*	*	*	*	*	*	1
LAO04_L	Lower 4 Stream	**	66	*	*	*	*	*	*	*	*	*	1
LAO05_L	Lower 5 Stream	**	66	*	*	*	*	*	*	*	*	*	1

TABLE II-b (cont.). 2024 Saipan Freshwater Stream Enterococci Exceedances of CNMI WQS

Enterococci % Violations													
Sample Station ID	Sampling Station Name	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Segment Class
SEGMENT 19A: WEST TAKPOCHAU (NORTH)													
WTN_UB1	Upper 1B Stream	**	*	100	100	*	*	*	*	*	*	*	1
WTN01_MB	Middle 1B Stream	**	100	100	100	*	*	*	*	*	*	*	1
WTN01_UB2	Upper 1B Stream	**	100	100	*	*	*	*	*	*	*	*	1
WTN01_L	Lower 1 Stream	**	100	100	100	*	*	*	*	*	*	*	1
SEGMENT 19B: WEST TAKPOCHAU (CENTRAL)													
WTC03_UA	Upper 3A Stream	**	66	*	100	*	*	*	*	*	*	*	1
WTC03_MA	Middle 3A Stream	**	100	100	100	*	*	*	*	*	*	*	1
WTC01_L	Lower 1 Stream	**	100	100	100	*	*	*	*	*	*	*	1
WTC02_L	Lower 2 Stream	**	100	100	100	*	*	*	*	*	*	*	1
WTC03_L	Lower 3 Stream	**	100	100	100	*	*	*	*	*	*	*	1
WTRC03_UC	Upper 3C Stream	**	100	100	100	*	*	*	*	*	*	*	1
WTC03_MC	Middle 3C Stream	**	100	100	100	*	*	*	*	*	*	*	1
WTC03_MB	Middle 3B Stream	**	100	100	100	*	*	*	*	*	*	*	1
WTC03_UB	Upper 3B Stream	**	100	100	100	*	*	*	*	*	*	*	1
SEGMENT 20A: ACHUGAO (NORTH)													
ACH01_L	Lower 1 Stream	**	100	*	*	*	*	*	*	*	*	*	1
ACH01_M	Middle 1 Stream	**	67	*	*	*	*	*	*	*	*	*	1
ACH01_U	Upper 1 Stream	**	100	*	*	*	*	*	*	*	*	*	1
SEGMENT 20B: ACHUGAO (SOUTH)													
WTN01_MA	Middle 1 Stream	**	*	*	*	*	*	*	*	*	*	*	1
ACH02_L	Lower 2 Stream	**	67	*	*	*	*	*	*	*	*	*	1
ACH02L_Site 1	Lower 2 Stream Lagoon outlet	**	*	100	78	94	*	*	*	*	*	*	1
ACH02L_Site 2	Lower 2 Stream Culvert side	**	*	86	67	100	*	*	*	*	*	*	1
AGATAN	Agatan Stream	**	*	*	*	100	*	*	*	*	*	*	1

APPENDIX III: Lake Water Quality Data for 2024 Assessments

TABLE III-a. 2024 CNMI Lakes – Bacteriological Exceedances of CNMI WQS

Sample Station ID	Sampling Station Name	Bacteriological % Violations																Segment Class
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
	SEGMENT 18B: SOUTH SUSUPE																	
18LAKB	Lake Susupe	52	8	10	16	5	19	11	0	44	29	36	19	23	9	23	13	1
	SEGMENT 25: ANATAHAN																	
25LAKA	Hagoi Haya	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
25LAKB	Hagoi Lagu	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
	SEGMENT 29: PAGAN																	
29LAKA	Laguna Sanhiyong	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*	*	1
	Laguna Sanhiyong North	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*	*	1
29LAKB	Sanhalom	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*	*	1

TABLE III-b. 2024 CNMI Lakes – Dissolved Oxygen (DO%) Exceedances of Water Quality Standards

Sample Station ID	Sampling Station Name	D.O. % Exceedances														Segment Class
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
	SEGMENT 18B: SOUTH SUSUPE															
18LAKB	Lake Susupe	55	67	83	50	58	74	31	36	32	26	9	5	0	0	1
	SEGMENT 25: ANATAHAN															
25LAKA	Hagoi Haya	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
25LAKB	Hagoi Lagu	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
	SEGMENT 29: PAGAN															
29LAKA	Laguna Sanhiyong	*	*	*	*	*	*	*	*	*	*	*	0	*	*	1
	Laguna Sanhiyong North	*	*	*	*	*	*	*	*	*	*	*	0	*	*	1
29LAKB	Sanhalom	*	*	*	*	*	*	*	*	*	*	*	0	*	*	1

TABLE III-c. 2024 CNMI Lakes – pH Exceedances of Water Quality Standards

Sample Station ID	Sampling Station Name	pH% Violations												Segment Class
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
	SEGMENT 18B: SOUTH SUSUPE													
18LAKB	Lake Susupe	16	0	11	17	60	11	45	11	25	0	0	20	1
	SEGMENT 25: ANATAHAN													
25LAKA	Hagoi Haya	*	*	*	*	*	*	*	*	*	*	*	*	1
25LAKB	Hagoi Lagu	*	*	*	*	*	*	*	*	*	*	*	*	1
	SEGMENT 29: PAGAN													
29LAKA	Laguna Sanhiyong	*	*	*	*	*	*	*	*	*	0	*	*	1
	Laguna Sanhiyong North	*	*	*	*	*	*	*	*	*	0	*	*	1
29LAKB	Sanhalom	*	*	*	*	*	*	*	*	*	0	*	*	1

TABLE III-d. 2024 CNMI Lakes – Nutrient Exceedances of Water Quality Standards

Sample Station ID	Sampling Station Name	Nutrient % Violations 2020		Nutrient % Violations 2021		Nutrient % Violations 2022		Nutrient % Violations 2023		Segment Class
		PO_4	NO_3	PO_4	NO_3	PO_4	NO_3	PO_4	NO_3	
	SEGMENT 18B: SOUTH SUSUPE									
18LAKB	Lake Susupe	*	*	0	0	0	0	0	0	1
	SEGMENT 25: ANATAHAN									
25LAKA	Hagoi Haya	*	*	*	*	*	*	*	*	1
25LAKB	Hagoi Lagu	*	*	*	*	*	*	*	*	1
	SEGMENT 29: PAGAN									
29LAKA	Laguna Sanhiyong	*	*	*	0	*	*	*	*	1
	Laguna Sanhiyong North	*	*	*	0	*	*	*	*	1
29LAKB	Sanhalom	*	*	*	0	*	*	*	*	1

APPENDIX IV: Biological Monitoring Data for 2024 Assessments

TABLE IV-a. 2024 Rota Benthic Substrate and Coral Diversity Indicators for Aquatic Life Use Support

Rota ALUS Ranking for FY2022-2023							Aquatic Life Use Support Values									5Yr Overall Ranking
Site ID	Beach location	Seg ID	Benthic Substrate Ratio Trends		Coral Diversity Trends		2008 IR FY06-07	2010 IR FY08-09	2012 IR FY10-11	2014 IR FY12-13	2016 IR FY14-15	2018 IR FY16-17	2020 IR FY18-19	2022 IR FY20-21	2024 IR FY22-23	
SEGMENT 1: DUGI/GAMPAPA/CHENCHON																
22	ROT 1	1	Significant	↓	Significant (In Coral Diversity)	↓	*	*	*	Fair	Fair	Fair	Fair	Fair	Poor	*Fair*
SEGMENT 2: SABANA/TALAKHAYA/PALIE																
23	Talakhaya	2	Non-Significant	↔	Non-Significant	↔	Fair	Fair	Fair	Fair	Fair	Fair	Poor	Poor	Poor	*Poor*
24	Talakhaya Stream		No New Data	*	No New Data	*	Fair	Fair	Fair	Fair	Fair	Poor	Poor	Poor	*	
25	Coral Garden		Non-Significant	↔	Significant	↓	Good	Good	Good	Good	Good	Good	Good	Good	Fair	
SEGMENT 3: SONGSONG																
26	East Harbor	3	Significant	↑	Significant (In Coral Diversity)	↑	Fair	Fair	Good	Good	Good	*	Poor	Fair	Fair	*Fair*
27	West Harbor		Non-Significant	↔	Non-Significant	↔	Poor	Poor	Fair	Fair	Fair	Fair	Fair	Fair	Fair	
SEGMENT 4: UYULANHULO/TETETO																
28	Rota Dump	4	Non-Significant Change	↔	Non-Significant	↔	*	Fair	Fair	Good	Fair	*	Fair	Fair	Fair	*Fair*
29	Sunset Villa		No New Data	*	No New Data	*	*	*	*	Good	Good	*	Fair	Fair	*	
SEGMENT 5: CHALIAT/TALO																
30	Swimming Hole	5	Non-Significant	↔	Non-Significant	↔	Fair	Fair	Good	Fair	*	Fair	Poor	Poor	Poor	*Poor*
31	Rota Resort		Non-Significant	↔	Significant	↑	*	*	*	Poor	Fair	Poor	Poor	Poor	Fair	

TABLE IV-b. 2024 Aguigan and Tinian Benthic Substrate, Coral Diversity, and Seagrass Trends for Aquatic Life Use Support

Tinian ALUS Ranking for FY2020-2021							Aquatic Life Use Support Values									5 Yr
Site ID	Beach location	Seg ID	Benthic Substrate Ratio Trends		Coral Diversity / Seagrass Trends		2008 IR FY06-07	2010 IR FY08-09	2012 IR FY10-11	2014 IR FY12-13	2016 IR FY14-15	2018 IR FY16-17	2020 IR FY18-19	2022 IR FY20-21	2024 IR FY22-23	Overall Ranking
SEGMENT 6: AGUIGAN																
21	Aguigan	6	Significant	↑	Significant (In Coral Diversity)	↑	Good	Good	No New Data	Fair	No New Data	No New Data	Poor	Fair	Good	*Good*
SEGMENT 7: MASALOK																
16	Unai Dangkolo	7	Non-Significant	↔	Significant (In Coral Diversity)	↑	Fair	Good	Good	No New Data	Good	No New Data	Fair	Good	Good	*Good*
SEGMENT 9: MAKPO																
17	South of Tachogna	9	Non-Significant	↔	Non-Significant (In Coral Diversity)	↔	No ranking	Fair	Poor	Poor	No New Data	No New Data	Poor	Fair	Fair	*Poor*
18	Taga Beach	9	Significant	↓	Significant (In Coral Diversity)	↓	Poor	Poor	No New Data	Poor	Poor	No New Data	Poor	Poor	Poor	
SEGMENT 9: PUNTAN DIAPLOMANIBOT																
19	Leprosarium Beaches	9	Non-Significant	↔	Non-Significant (In Coral Diversity)	↔	Fair	Fair	No New Data	Fair	Poor	No New Data	Poor	Fair	Fair	*Fair*
SEGMENT 11: PUNTAN TAHGONG																
20	Unai Babui	11	Non-Significant	↔	Significant (In Coral Diversity)	↑	Poor	Poor	Poor	No New Data	No New Data	No New Data	Poor	Poor	Fair	*Poor*

TABLE IV-c. 2024 Saipan Benthic Substrate, Coral Diversity, and Seagrass Trends for Aquatic Life Use Support

Saipan ALUS Ranking for FY2020-2021							Aquatic Life Use Support Values									
Site ID	Beach location	Seg ID	Changes in Benthic Substrate Ratio Trends		Changes in Coral Diversity or Seagrass Trends		2008 IR FY06-07	2010 IR FY08-09	2012 IR FY10-11	2014 IR FY12-13	2016 IR FY14-15	2018 IR FY16-17	2020 IR FY18-19	2022 IR FY20-21	2024 IR FY22-23	5 Year Overall Ranking
SEGMENT 12: KALABERA																
1	Bird Island forereef	12	Non -Significant	↔	Non-Significant	↔	Fair	Fair	Good	Fair	Fair	Fair	Poor	Fair	Poor	*Poor*
SEGMENT 13: TALOFOFO																
CNMI-104	Jeffrey's Beach Reef Flat	13	New Data	*	New Data	*	*	*	*	*	*	*	*	*	Poor	*Poor*
SEGMENT 14: KAGMAN																
2	Tank Beach forereef	14	Significant	↓	Significant (In Coral Diversity)	↓	No Ranking	No Ranking	No Ranking	Good	No New Data	Good	Poor	Fair	Poor	*Fair*
CNMI-29	Tank Beach Reef flat		Non-Significant	↔	Significant (In Coral Diversity)	↓	*	*	*	*	*	*	*	Good	Fair	
SEGMENT 15: LAOLAO																
3	North LaoLao Dive Site forereef	15	Non-Significant	↔	Non-Significant	↔	Fair	Fair	Fair	Fair	No New Data	Fair	Fair	Fair	Fair	*Poor*
4	LaoLao South forereef		Non-Significant	↔	Non-Significant	↔	Poor1,2	Poor1,2	Poor1,2	Poor1,2	Poor1,2	Poor1,2	Poor1,2	Poor	Poor	
CNMI-21	Central LaoLao Reef flat		Non-Significant	↔	Significant (In Coral Diversity)	↓	*	*	*	*	*	*	*	Fair	Poor	
SEGMENT 16: DAN DAN																
CNMI-72	DanDan reef flat	16	Significant	↑	Significant (In Coral Diversity)	↑	*	*	*	*	*	*	*	Good	Good	*Good*
SEGMENT 17b: ISLEY (EAST)																
6	Obyan Beach forereef	17b	No New Data	*	No New Data	*	Fair	Fair	Good	Good	Good	Good	Poor	Fair	No New Data	*Good*
CNMI-30	Obyan beach Reef flat		Non -Significant	↔	Non-Significant	↔	*	*	*	*	*	*	*	Good	Fair	
5	Boy scout Beach reef flat		Significant	↑	Significant (In Coral Diversity)	↑	Fair	Poor1,2	Fair	No New Data	Fair	Fair	Fair	Good	Good	
SEGMENT 17a: ISLEY (WEST)																
7	Unai Dangkulo reef flat	17a	Non-Significant	↔	Non-Significant	↔	Good	Poor2	Poor2	Poor2	Poor2	No New Data	Poor	Poor	Fair	Poor
SEGMENT 18b: SUSUPE (SOUTH)																
55	Sugar Dock Seagrass	18b	Significant	↑	Significant (In Seagrass Trends)	↑	No Ranking	No Ranking	No Ranking	Fair	Good	Poor	Fair	Good	Good	*Good*
56	San Antonio Beach Seagrass		Non-Significant	↔	Non-Significant	↔	Good	No New Data	No New Data	Fair	Fair	Good	Good	Good	Good	
57	San Antonio Beach seagrass		Significant	↑	Significant (In seagrass Trends)	↑	Good	No New Data	Good	Fair	No New Data	No New Data	Fair	Good	Good	
SEGMENT 18a: SUSUPE (NORTH)																
8	Kanoa Resort seagrass	18a	No New Data	*	No New Data	*	Good	Good	Good	Good	No New Data	Good	No New Data	No New Data	No New Data	*Good*
53	Civic Center Beach seagrass		Non-Significant	↔	Significant (In Seagrass Trends)	↑	No Ranking	Fair	Fair	Fair	Good	No New Data	Good	Good	Good	

TABLE IV-c (cont.). 2024 Saipan Benthic Substrate, Coral Diversity, and Seagrass Trends for Aquatic Life Use Support

Saipan ALUS Ranking for FY2020-2021							Aquatic Life Use Support Values									5 Year Overall Ranking
Site ID	Beach location	Seg ID	Changes in Benthic Substrate Ratio Trends		Changes in Coral Diversity or Seagrass Trends		2008 IR FY06-07	2010 IR FY08-09	2012 IR FY10-11	2014 IR FY12-13	2016 IR FY14-15	2018 IR FY16-17	2020 IR FY18-19	2022 IR FY20-21	2024 IR FY22-23	
SEGMENT 19c W. TAKPOCHAO (SOUTH)																
46	13 Fishermen Beach seagrass	19c	No New Data	*	No New Data	*	Poor1	Poor1	Poor1	No New Data	Fair	Fair	Poor	Good	No New Data	*Fair*
49	Chalan Laulau Beach seagrass		Significant	↑	Significant (In Seagrass Trends)	↑	Good	Good	No New Data	Poor1	No New Data	No New Data	Poor	Poor	Good	
SEGMENT 19b: W. TAKPOCHAO (CENTRAL)																
9	Garapan Beach seagrass	19b	No New Data	*	No New Data	*	No Ranking	Poor1	Fair	No New Data	Fair	Fair	Fair	No New Data	No New Data	*Good*
42	Fiesta Resort seagrass		Non -Significant	↔	Significant (In Seagrass Trends)	↑	No Ranking	No Ranking	No Ranking	Good	Good	No New Data	Poor	Good	Good	
43	Drainage #3 seagrass		No New Data	*	No New Data	*	No Ranking	No Ranking	No Ranking	Fair	Fair	No New Data	Poor	Poor	No New Data	
SEGMENT 19a: W. TAKPOCHAO (NORTH)																
None	DPW Channel Bridge seagrass	19a	No New Data	*	No New Data	*	Poor1	No New Data	No New Data	No New Data	No New Data	No New Data	No New Data	No New Data	No New Data	*
SEGMENT 20b: ACHUGAO (SOUTH)																
41	Tanapag Meeting Hall seagrass	20b	New Data	↔	New Data	↔	Poor1	Poor1	Poor1	No New Data	Poor1	No New Data	No New Data	No New Data	Good	*Good*
SEGMENT 20a: ACHUGAO (NORTH)																
36	San Roque School seagrass	20a	Non-Significant	↔	Non-Significant	↔	Poor1	Fair	Good	Good	No New Data	No New Data	Good	Good	Good	*Good*
37	Plumeria Hotel seagrass		No New Data	*	No New Data	*	No Ranking	No Ranking	No Ranking	Fair	Fair	No New Data	No New Data	Good	No New Data	
38	Aqua Resort seagrass		Significant	↑	Significant (In Seagrass Trends)	↑	Poor1	No New Data	Poor1	Fair	No New Data	No New Data	No New Data	Good	Good	
39	Aqua Resort		No New Data	*	No New Data	*	No Ranking	No Ranking	No Ranking	Fair	No New Data	No New Data	No New Data	Fair	No New Data	
SEGMENT 21: AS MATUIS																
15	Wing Beach forereef	21	Non-Significant	↔	Non-Significant	↔	Good	Good	Good	Good	No New Data	Good	Poor	Poor	Fair	*Good*
CNMI-19	Wing Beach Reef flat		Significant	↑	Significant (In Coral Diversity)	↑	*	*	*	*	*	*	*	Fair	Good	
34	Pau Pau Beach seagrass		Non -Significant	↔	Non-Significant	↔	Good	No New Data	Good	Poor1	Poor1	No New Data	No New Data	Fair	Fair	

ABLE IV-d. 2024 Mañagaha Aquatic Life Use Support – Benthic Substrate and Coral Diversity

Managaha ALUS Ranking for FY2020-2021							Aquatic Life Use Support Values									5 Year Overall Ranking
Site ID	Beach location	Seg ID	Changes in Benthic Substrate Ratio Trends		Changes in Coral Diversity or Seagrass Trends		2008 IR FY06-07	2010 IR FY08-09	2012 IR FY10-11	2014 IR FY12-13	2016 IR FY14-15	2018 IR FY16-17	2020 IR FY18-19	2022 IR FY20-21	2024 IR FY22-23	
SEGMENT 23: MANAGAHA																
11	Managaha Patch Reef	23	Significant	↓	Signficant (In Coral Diversity)	↓	No Ranking	No Ranking	No Ranking	Good	Good	Good	Poor	Fair	Poor	*Fair*
12	Managaha MPA forereef		Non-Significant	↔	Non-Significant	↔	Good	Good	Good	Good	Good	Good	Good	Good	Fair	
13	Outside Managaha back reef		Non-Significant	↔	Non-Significant	↔	No Ranking	Good	Good	No New Data	Fair	No New Data	Fair	Poor	Fair	

APPENDIX V: Stream Visual Assessment Protocol (SVAP) Results – 2024

V.1. Updated Stream Assessment Narratives

This appendix provides updated stream assessment narratives reflecting new data collected during the 2022–2024 reporting cycle. Four stream systems were newly surveyed using the Saipan Stream Visual Assessment Protocol (SVAP):

- Kannat Fananganan and Kannat Falipe (Central West Takpochau watershed),
- Kannat Taddong Rapugao (North West Takpochau watershed), and
- Kannat Taddong Mahettok (South Achugao watershed).

These assessments supplement and update the stream characterization sections first presented in the 2022 Integrated Report, which can be viewed **here** (including cited references). Key changes include revised determinations for aquatic life support in upper watershed reaches, clarification of use support in highly urbanized lower reaches, and the addition of updated CALM category assignments where applicable.

V.1.1. Central West Takpotchau – Waterbody Segment 19B

(Reference: 2022 Integrated Report Section C.3.5.8)

Central W. Takpochau – Freshwater Streams

The headwaters of the streams in the Central West Takpochau sub-watershed begin at Mt. Takpochau and flow northwest into the mid-watershed. These ephemeral streams have been mapped using GIS, but stream water quality data is very limited, with only one to three data points collected each year from the reaches that were flowing during the implementation of the SWQMP from FY2013 through FY2016. This number is insufficient to provide a robust statistical assessment of the *Recreational* DU, and further efforts to grab water quality samples were dropped and replaced with the SVAP in FY2017.

Based on McKagan, et al. (2008), fishermen living near the streams in the lower watershed reported the presence of freshwater shrimp, and eels. This was within the open drainage channels alongside Orchid Street and Garapan Street (Route 308) which eventually flow out of Garapan Drainages #1 and #2. The study also found Thiarid snails and Sailfin Molleys (*Poecilia latipinna*) as the predominant species, along with juvenile milk fish, and invasive Tilapia in the drainage. McKagen, et.al., considered this the most disturbed stream system surveyed, which is not surprising considering it is a completely man-made drainage system with no discernable connection to any natural stream channels.

Visual field assessments of two streams within the upper watershed, Kannat Fananganan and Kannat Falipe, were completed in FY2023 using the SVAP method. Overall ratings of "High" were assigned to both streams based on field survey scores. This contradicts the findings of McKagan, et al., which again is not surprising given that those surveys were based on the extreme lower reaches of these streams, at a point at which the streams have been completely channelized into concrete storm drainage systems, with no direct connection to the natural channels in the upper watershed surveyed as part of the SVAP. This lack of direct hydrological connection between the upper, natural stream channels and the urbanized drainage systems of the lower watershed is supported by both prior USGS mapping and current GIS mapping. Therefore, this report updates

previous findings to report that the upper, natural stream reaches of the Central West Takpochau stream reaches support the *Propagation of Aquatic Life* DU. The lower reaches, however, do not support this DU, and the segment as a whole will remain listed as impaired for now. DEQ may revisit the classification of these man-made drainages as streams in future Integrated Reports.

In addition, the Central West Takpochau streams (lower watershed only) remain 303(d) listed as impaired due to the presence of Hg contamination sourced back to the hospital parking area drainage. Therefore, they do not support the *Fish and Shellfish Consumption* DU.

Stream water quality data is no longer monitored in Central West Takpochau since adoption of the SVAP. However, previous data exceeded the CNMI WQS for Enterococci. The source is thought to be from urban stormwater and sewer overflows, erosion and sediment, and piggeries and other small animal pens in the upper watershed that are in close proximity to the streams. Some farms are operating without appropriate BMPs in place, or animal wastewater collection systems. Therefore, Central West Takpochau's streams do not support the *Recreational* DU.

As ephemeral streams, the Central West Takpochau stream systems do not provide sufficient flow to be evaluated for *Potable Water Supply* DU under the CNMI WQS protocols.

In addition, the Central West Takpochau streams are considerably altered and not in their natural state for visitors' enjoyment. The mid and lower streambeds are highly urbanized, with concrete conveyances channeling flow to the lagoon. Therefore, Central W. Takpochau freshwater streams are Saipan's only waterbodies that do not support the *Aesthetic Enjoyment* DU, but not due to a pollutant.

V.1.2. North West Takpotchau – Waterbody Segment 19A

(Reference: 2022 Integrated Report Section C.3.5.8)

North W. Takpochau – Freshwater Streams

The upper portions of the North West Takpochau watersheds drain into the Lower Base wetlands complex which drains to the DPW Bridge monitoring site. The upper reaches of these stream channels are well defined and were surveyed using the SVAP method during the FY2022-2023 reporting cycle. The lower portions lose their identity as streams within the wetlands complex. The stream system feeding this wetland is known as Kannat Taddong Rapugao, and was assessed using the SVAP method during this reporting cycle. While much of this stream is relatively natural, portions of it lie alongside secondary roadways and are surrounded by low-density housing and small-scale agriculture. One portion of one branch has been channelized into a large concrete culvert that runs underneath 1980s-era development. Based on the survey, no permanent pools of water were observed and the stream appears to be ephemeral only. Considerable trash and some WWII debris were observed during the surveys, resulting in an overall "Fair" assessment.

Water quality data for this stream system is limited, with only one to three data points collected each year from flowing reaches during the implementation of the SWQMP from FY2013 through FY2016. This number is insufficient to provide a robust statistical assessment of the *Recreational* DU, and further efforts to grab water quality samples were dropped and replaced with the SVAP in FY2017. Based on the SVAP assessments conducted during this reporting period, this stream meets the *Support and Propagation of Aquatic Life* and *Aesthetic Enjoyment* DUs.

The heavy metal studies conducted by Denton, et.al, and evaluated under previous editions of this report did not mention collecting fish tissue or biota samples from North West Takpochau stream upland from the DPW Channel Bridge BEACH site. Initial visual assessments revealed no overt evidence of WWII debris. However, there is insufficient information at this time to assess the *Fish and Shellfish Consumption* DU.

These stream systems do not provide a stable and sufficient *Potable Water Supply* for this densely populated watershed, and therefore they are not assessed for this DU.

North W. Takpochau – CALM Categories

North West Takpochau's streams retain a CALM Category 3 due to insufficient information.

V.1.3. South Achugao – Waterbody Segment 20B

(Reference: 2022 Integrated Report Section C.3.5.9)

South Achugao – Freshwater Streams

The South Achugao watershed includes some of Saipan's most valuable and beautiful stream systems. The 2022 Integrated Report detailed the findings of SVAP assessments which were completed within and around the As Agatan and Saddok Dogas stream systems. An additional stream system, Kannat Taddong Mahettok, was surveyed for this reporting Cycle.

Kannat Taddong Mahettok lies near the southern boundary of the watershed and was initially counted as part of the North West Takpochau watershed, but that was corrected for this cycle. Kannat Taddong Mehettok runs from headwaters near the top of the island's ridge to the Lower Base industrial area, where it loses its identity as a stream channel and discharges through culverts and along roadways to the Falig Mitigation Wetland. This is a very steep stream which harbors some permanent pools of water near its headwaters, and numerous steep waterfalls during the rainy season. Although some trash and WWII debris were observed in its lowest reaches, the stream is largely undisturbed and was assessed as "High" overall. This affirms the 2022 IR assessment that South Achugao's freshwaters fully support the *Propagation of Aquatic Life* and *Aesthetic Enjoyment* DUs.

However, South Achugaos' streams retain a CALM Category 5 as detailed in the 2022 IR due to heavy metal contamination in Saddok Dogas and As Agatan, as well as exceedances of the CNMI WQS for Enterococci, which is unsupportive of the *Fish and Shellfish Consumption,* and *Recreational* DUs.

South Achugao – CALM Categories

South Achugaos' streams retain a CALM Category 5 due to heavy metal contamination and exceedances of the CNMI WQS for Enterococci, which is unsupportive of the *Fish and Shellfish Consumption,* and *Recreational* DUs.

TABLE V-a. 2024 Saipan Stream Visual Assessment Protocol (SVAP) Results

Site ID	Stream location	SVAP Average Score		Saipan Ranking for FY2022-2023 Anthropogenic Impacts		Restoration Opportunities		Stream Visual Assessmen 2020 IR FY18-19	2022 IR FY20-21	2024 IR FY22-23	*2024 IR Overall Ranking*
SEGMENT 12STR: KALABERA											
*	Bird Island Ravine	No New Data	*	No New Data	*	No New Data	*	*	*	*	*i*
SEGMENT 13STR: TALOFOFO											
*	Stream to Jeffries Beach	No New Data	*	No New Data	*	No New Data	*	***High***	*	*	*i*
SEGMENT 14STR: KAGMAN											
*	Tank Beach	No New Data	*	No New Data	*	No New Data	*	*	*	*	*i*
SEGMENT 15STR: LAOLAO											
LauLau1	Eastern Stream near GapGap Rd.	3.1	↑	litter and significant sediment deposition in basins	↓		*	*	***High***	*	*i*
LauLau2	Stream west of Dive beach	3.4	↑	Minimal litter near coral roadway. Coral road crumbling	↓		*	*	***High***	*	*i*
LauLau3	**Stream below Japanese Cave**	3.4	↑	Culverts in need of repair	*	**Install low water crossing**	*	*	***High***	*	*i*
LauLau4	Steam west of MINA beach	3.2	↑	Culverts in need of repair	↓	Repair culverts	*	*	***High***	*	*i*
LauLau5	**Kannat Laolao (crosses Railroad Dr.)**	3.2	↑	Lots of litter and trash from homes upstream	↓	Remove litter and sediments from catchment basins	↑	*	***High***	*	*i*
LauLau6	**Stream alongside Isa Dr. hill**	3.2	↑	Lots of litter and trash from homes upstream	↓	Remove litter and sediments from catchment basins	↑	*	***High***	*	*i*
LauLau7	Steam next to LauLau Rd.	2.9	↔	Significant sediment from coral road	↓	Construct sediment catchment basins	*	*	***Fair***	*	*i*
SEGMENT 16STR: DAN DAN											
*	DanDan	No New Data	*	No New Data	*	No New Data	*	*	*	*	*i*
SEGMENT 17STRB: ISLEY (EAST)											
*		No New Data	*	No New Data	*	No New Data	*	*	*	*	*i*
SEGMENT 17STRA: ISLEY (WEST)											
*		No New Data	*	No New Data	*	No New Data	*	*	*	*	*i*

> 3.5 = very high; 3.1 – 3.5 = high; 2 – 3 = Fair; < 2 = Low

Entries in **bold/red** are new or updated for 2024

TABLE V-a (cont.). 2024 Saipan Stream Visual Assessment Protocol (SVAP) Results

Site ID	Stream location	SVAP Average Score	Saipan Ranking for FY2022-2023 Anthropogenic Impacts		Restoration Opportunities		Stream Visual Assessmen 2020 IR FY18-19	2022 IR FY20-21	2024 IR FY22-23	*2024 IR Overall Ranking*
SEGMENT 18STRB: SUSUPE (SOUTH)										
*		No New Data	*	No New Data	*	No New Data	*	*	*	*i*
SEGMENT 18STRA: SUSUPE (NORTH)										
*		No New Data	*	No New Data	*	No New Data	*	*	*	*i*
SEGMENT 19STRC W. TAKPOCHAO (SOUTH)										
*		No New Data	*	No New Data	*	No New Data	*	*	*	*i*
SEGMENT 19STRB: W. TAKPOCHAO (CENTRAL)										
WTC1	**Kannat Fananganan Lichan**	**3.3**	*	**Trash & Litter**	*	**Litter cleanup, road paving or grading**	*	*	*	***High***	*i*
WTC2	**Kannat Falipe**	**3.4**	*	**Trash & litter**	*	**Litter cleanup, road paving or grading**	*	*	*	***High***	*i*
SEGMENT 19STRA: W. TAKPOCHAO (NORTH)										
WTN2	**Kannat Taddong Rapugaoao**	**2.9**	*	**Trash, WWII debris**	*	**Litter cleanups, livestock outreach**	*	*	*	***Fair***	*i*
SEGMENT 20STRB: ACHUGAO (SOUTH)										
DG	Dogas	3	↔	Lots of trash, WWII debris, UXO, Sewerline needs upgrade	↓	Lower watershed school stream clean up	↑		***Fair***	*	*i*
AGN	Agatan	2.6	↔	Stream routed under roadway	↓	Wetland restoration	*		***Fair***	*	*i*
WTN1	**Kannat Taddong Mahettok**	**3.4**	*	**Trash, WWII debris**	*		*	*	*	***High***	*i*
SEGMENT 20STRA: ACHUGAO (NORTH)										
ACH	Achugao	3	↔	Trash, WWII debris, historic withdrawal upstream	↓		*		***Fair***	*	*i*
SEGMENT 21STR: AS MATUIS										
*		No New Data	*	No New Data	*	No New Data	*	*	*	*i*

> 3.5 = very high; 3.1 – 3.5 = high; 2 – 3 = Fair; < 2 = Low

Entries in **bold/red** are new or updated for 2024