CNMI Comprehensive Public Land Use Plan Update

for

Rota, Tinian, Saipan, and the Northern Islands

Department of Public Lands
Commonwealth of the Northern Mariana Islands

March 2019

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I. EXECUTIVE SUMMARY

The Public Land Use Plan is a guidance document which is intended to be updated every five (5) years, which documents the objectives of outlined Public Law 15-02 which are necessary in the consideration and planning of capital improvements.

Parallel to the Plan Document is the data that can be accessed, manipulated and visually analyzed using Geographic Information System (GIS) software. Use of GIS allows for ongoing analysis, and consideration between plan updates. This can be done on a daily basis, when changes occur on the ground or when additional data is made available.

In order to provide a transparent public process, public outreach started in September 2017 and continued until June 2018. In September 2017 and May 2018, public hearings were held on Saipan, Rota, and Tinian to engage the public and collect feedback to develop recommendations for future land uses for the Public Land Use Plan. Separate public hearings for the Northern Islands were held on Saipan for the Northern Islands residents who are currently residing on Saipan and anticipate reoccupation of the Northern Islands, particularly Anatahan, Alamagan, Pagan, and Agrihan. A summary of public meetings is provided. (See: Appendix C)

The planning methodology used to update the Plan was to coordinate public outreach efforts with DPL to inventory the public land and identify land uses appropriate for future development in the CNMI. Using this method of information gathering is helpful in identifying opportunities from the public to guide the creation of the Future Land Use maps.

During the public outreach process, the homestead program, preservation of natural resources, cultural and historically significant sites, and infrastructure improvements were identified as the priority of the residents of the CNMI based on feedback at public meetings and survey responses.

As a result of the public outreach process the team has prepared Future Land Use Maps for the islands of Saipan, Tinian, Rota, Anatahan, Alamagan, Pagan, and Agrihan that illustrate potential locations of future uses on public land that may be utilized in the 5-10 year planning horizon of this Plan update.

A strategy to implement the Plan update policies related to infrastructure and public facilities is to prepare a **long range implementation program** to ensure that CIP project are scheduled, financed, and constructed in a timely manner.

II. ACKNOWLEDGEMENTS

The Department of Public Lands (DPL) extends its deepest appreciation to the following local and federal departments and agencies and private firms for their assistance in providing pertinent information for completion of the Comprehensive Public Land Use Plan:

The Residents of the Commonwealth of the Northern Mariana Islands, especially those who completed survey's or participated in the public hearings
Office of the Governor, Commonwealth of the Northern Mariana Islands
Twentieth and Twenty-First Northern Marianas Commonwealth Legislature Senate
Twentieth and Twenty-First Northern Marianas Commonwealth Legislature House of Representatives
Office of Planning and Development (OPD)
Zoning Office
Department of Health
Department of Public Safety (DPS)
Board of Education and the Public School System (PSS)
Emergency Management Office (EMO)
Commonwealth Office of Transit Authority (COTA)
Commonwealth Ports Authority (CPA)
Commonwealth Utilities Corporation (CUC)
Commonwealth Development Authority (CDA)
Bureau of Environmental and Coastal Quality (BECQ) Coastal Resources Management Office (CRM)
Historic Preservation Office (HPO), Department of Community and Cultural Affairs
Department of Land and Natural Resources
Division of Fish & Wildlife, Department of Lands & Natural Resources
Division of Agriculture, Department of Land & Natural Resources
Division of Parks and Recreation, Department of Land & Natural Resources
Northern Marianas Housing Corporation
Department of Public Works
Department of Community and Cultural Affairs
Department of Commerce
Marianas Visitors Authority (MVA)
Northern Marianas College (NMC)
NMI Tennis Association
Tinian Cattlemen's Association

Hotel Association of the Northern Mariana Islands (HANMI)
Public Information and Protocol Office, Office of the Governor
CNMI Military Veteran Affairs Office (MVAO)
Office of the Governor, Substance Abuse and Rehabilitation (SAR) program
Office of Indigenous Affairs
Saipan Mayor's Office
Tinian Mayor's Office
Rota Mayor's Office
Northern Islands Mayor's Office
Saipan Chamber of Commerce
Bank of Guam
First Hawaiian Bank
Bridge Investment Group
Saipan World Resort

Pacific Engineering Group and Services, LLC P.E.G.S
Chris Hart and Partners, Inc.
John M. Knox and Associates, Inc.
Myounghee Noh & Associates, LLC.

III. INTRODUCTION

1. ENABLING LEGISLATION

This Comprehensive Public Land Use Plan document has been prepared for the Commonwealth of the Northern Mariana Islands (CNMI), Department of Public Lands (DPL) to satisfy Public Law 15-02, specifically section 105(f), which is to prepare a comprehensive land use plan for public lands that is updated every 5 years.

The key driver of the plan is to update the current Public Land Use Plan adopted in 1989. The purpose of this update is intended to identify current issues, opportunities, needs, and organize public land policy in a manner that makes the best and appropriate use of unencumbered public lands. Ultimately, the goal of the plan is to provide for the efficient and effective services in the management, use, development, and disposition of public lands for the economic and social betterment of the DPL beneficiaries.

2. 1989 PUBLIC LAND USE PLAN

The current Public Land Use Plan was adopted in 1989 and has not been updated since. Major objectives of the 1989 plan included an analysis of expected population growth by Island, inventory of available public lands, and analysis of public facilities, and natural and environmental resources. In addition, the 1989 plan included a Public Lands Data base, base maps and overlays which established the capability for use of Geographic Information system (GIS) as a decision making tool for DPL.

3. DOCUMENT SUMMARY AND ORGANIZATION

This Comprehensive Public Land Use Plan document has been prepared by a consultant team consisting of Pacific Engineering Group and Services, LLC (P.E.G.S), Chris Hart and Partners, Inc. John M. Knox and Associates, Inc., and Myounghee Noh & Associates, L.L.C selected by the DPL and is organized into a format that describe the existing conditions of the CNMI, provides a socioeconomic forecast with recommendations for the future and updated Geographic Information Systems (GIS) maps. For a detailed list of each chapter of this report please refer to the table of contents at the beginning of this document. The hardcopy document will include appendices and a separate book containing all GIS maps. An electronic version of this report and associated maps will be available for the DPL to share with the public.

4. PUBLIC PARTICIPATION

As part of the Public Land Use Plan preparation it was important to engage the community and various government agencies and organizations to ask what priorities, uses, and facilities should be considered within the next 5 years. In order to provide a transparent public process, public outreach started in September 2017 and continued until June 2018. In September 2017 and May 2018, public hearings were held on Saipan, Rota, and Tinian to engage the public and collect feedback to develop recommendations for future land uses for the Public Land Use Plan. Separate public hearings for the Northern Islands were held on Saipan for the Northern Islands residents who are currently residing on Saipan and anticipate reoccupation of the Northern Islands, particularly Anatahan, Alamagan, Pagan, and Agrihan. A summary of public meetings is provided. (See: Appendix C)

In combination with the public meetings, surveys were made available to the public during that time. 164 surveys were responded to and reviewed by the team. Survey results that were repetitive among residents helped the team understand the priorities of the CNMI related to use of public land use. Additional community involvement included newspaper notices, radio spots, DPL Facebook page, DPL website, and Public Outreach booths.

The planning methodology used to update the Plan was to coordinate public outreach efforts with DPL to inventory the public land and identify land uses appropriate for future development in the CNMI. Using this method of information gathering is helpful in identifying opportunities from the public to guide the creation of the Future Land Use maps.

IV. EXISTING CONDITIONS

1. CNMI HISTORICAL/GEOGRAPHICAL INFORMATION

The Marianas were first settled around 2000 B.C. by ancient seafaring people who journeyed in outrigger canoes. They sailed across the vast expanse of the open Pacific and settled in the Marianas. Historical records suggest that the indigenous Chamorros were originally from Southeast Asia.

The Marianas were first encountered by Spanish explorer Ferdinand Magellan in 1521 during his world exploration in search of gold and spices. In 1668, 147 years after Magellan's encounter, Fr. Diego Luis de San Vitores, a Jesuit priest, arrived in The Marianas with the mission to convert and implement Christianity among the Chamorros, thus beginning the colonization of The Marianas by Spain. The islands were named after Queen Maria Ana of Spain.

Led by Chief Aghurubw and Chief Nguschul of the Caroline Islands, the settlement of the Carolinians in The Marianas began in 1815.

Germany purchased The Marianas from Spain in 1899, and the islands remained under German rule until the start of WWI in 1914. That year, Japan took possession of the islands under a secret agreement with the British to keep peace in Asia during the war. After WWI, Japan received the islands by the terms of the Treaty of Versailles in 1919, and then later, as a mandate under the League of Nations in 1920. The islands became deadly battlegrounds during the WWII campaign as Japanese and U.S. forces collided to gain control of the Pacific.

U.S. forces gained control of The Marianas in July 1944. In 1947, The Marianas were placed in a United Nations strategic trusteeship known as the Trust Territory of the Pacific Islands with the U.S. as the administering authority. The people of The Marianas decided to enter into a political union with the United States and became a self-governing commonwealth in January 1978. In November 1986, U.S. citizenship was conferred upon the people of The Marianas.

The Public Land Use Plan update considers historical and culturally sensitive sites and locations in the CNMI. Historic Sites maps have been prepared for each major island to identify significant sites of importance in order to preserve the sites for future public enjoyment. Public outreach meetings and survey responses determined that environmental protection and conservation of CNMI natural and historical and cultural resources are a priority uses for public land.

Saipan is located about 120 miles (190 km) north of Guam and 5 nautical miles (9.3 km) northeast of Tinian, from which it's separated by the Saipan Channel. Saipan is about 12

miles long and 5.5 miles wide. Saipan, as the capitol, is the largest and most populated island in The Marianas.

While Saipan legalized casino gambling and issued a sole license to the Macau-based Imperial Pacific International Holdings Inc. (IPI) for a large casino and hotel soon thereafter (in 2014), only the casino had opened as of 2017. The adjacent hotel (for which construction was expected to finish by August 2018), has now been pushed back to August 13, 2023, due to a complicated set of labor issues related in part to current unavailability of CW-1 workers following actions by the U.S. Immigration and Customs Enforcement over safety and illegal hires. IPI proposes a large "Phase 2" to its investment – including an additional casino, hotels, shopping, and other attractions, probably in the Marpi area – but like many other substantial proposals, this is not a certainty at the present time. An unfolding alternative seems to be taking place as IPI appears to be expected to take over the former Marianas Resort in the Marpi area whose lease recently expired.

There are currently four hotels or condo-tels under construction on Saipan, and five additional ones with permits under review at the Bureau of Environmental and Coastal Quality (BECQ), totaling a future inventory (if all constructed) of over 2,200 additional rooms on the island.

The nature of tourism is changing in Saipan. Apartment-based vacation rentals (not counted in MVA lodging inventories) have been estimated as 35% of total inventory by some visitor industry sources in confidential interviews for this project. And some new projects under development are more in the nature of limited-service "condo-tels" than traditional full-service hotels.

Finally, Senate Bill 20-35 was unanimously passed by the Senate which extends land leases for hotel properties to a combined 55 years. (In general, off-island investors have long expressed concern over the relative brevity of 40-year leases permitted to non-NMD lessees.) With this new certainty, owners of major properties are more likely to invest in repairs and renovations, contributing to enhancement and possible expansion of the hotel inventory in Saipan.

Tinian is about 5 nautical miles southwest of Saipan, separated by the Saipan Channel. It has a land area of 39 square miles, with its highest elevation at Mount Lasso (561 ft). The island has a variety of flora and fauna, and limestone cliffs and caves. There is a variety of marine life and coral reefs surrounding the island.

The Tinian Dynasty Hotel & Casino opened in 1998. It was the only casino in CNMI for many years, but closed in 2015 after U.S. federal law enforcement fined its owners $75 million for failing to follow anti-money-laundering procedures. The property remains closed as of January 2019. According to data provided by BECQ, most of CNMI's future planned labor demand is for development on the island of Tinian, where two other casino resorts have been proposed, with an estimated labor demand of 6,359 workers for operations – more than twice the island's population in 2016. The likelihood of any of these projects actually materializing is uncertain at this time.

Rota (Luta) is the southernmost island of the United States Commonwealth of the Northern Mariana Islands (CNMI) and the second southernmost of The Marianas Archipelago. It lies approximately 40 nautical miles north-northeast of Guam. Sinapalo village is the largest and most populated followed by Songsong village.

Despite the island's beauty and environmental appeal, tourism has a spotty history on Rota and it is unclear what can really succeed there. Although a Gaming Commission exists on the island, there are no current likely prospects for casino development. (One proposal resulted in a lawsuit for the Commission, recently settled.) Interviews with public and private officials for this study suggest that small upscale eco-tourist lodges are now more likely to be developed on the island

This Plan focuses on four (4) of the Northern Islands, specifically Agrihan, Pagan, Alamagan, and Anatahan which are intended for habitation, potentially within this masterplan horizon. Analysis was not focused on islands which were not anticipated for the siting of homesteads within the plan horizon.

The U.S. military is currently preparing an Overseas Environmental Impact Statement (OEIS) to assess the potential effects of new live-fire training on Pagan, one of the Northern Islands. Some previous residents have opposed this project, hoping to promote small tourism-related economic development in the form of eco-tourism on the island, in addition to resettling there themselves. Other forms of economic development that have been proposed include a proposal to mine for pozzolan, a material used for concrete durability. The socioeconomic study conducted for the military OEIS mentions a 1978 Master Plan for Pagan drafted by the Office of Transition Studies and Planning which noted that exploitation of basalt deposits could be an economic development possibility for the island.

The islands of Agrihan, Pagan Alamagan, and Anatahan are intended for future habitation, potentially within this plan horizon. The above islands have been mapped and included in this plan update. The Plan recommends feasibility studies are conducted to analyze the ideal ocean entry access point and future homestead sites have been identified in consultation with the community and the Mayor of the Northern Islands office during the public outreach process.

The CNMI has Challenges and Opportunities and the biggest challenge as of this update is – given limited on-island labor supply – the future availability of foreign workers to construct and operate potential new tourism-related developments (casinos, hotels, etc.), as well as fill societal support positions such as health care. However, there are also other uncertainties – e.g., continuation of tourist visas for the increasingly important Chinese market; potential impact on tourism of new military activities; or availability of capital for casino or other tourism development on Tinian and Rota.

Adding to this sense of economic uncertainty, CNMI has a significant history of "boom-bust" economic patterns over time – i.e., its economy has historically been unstable. The longest available historical data series that illustrates this is MVA data on Visitor Arrivals, which show near-exponential growth till 1997, then a general sharp downward trend to 2011, followed by upturn. (**See**: Appendix A)

2. Population

The population of the CNMI has experienced growth over the last few decades including a peak population in 2000 for the main islands of Saipan, Tinian and Rota. After the garment industry left the CNMI the Commonwealth population decreased on all islands by 2010. From 2010 to 2016 the population of the CNMI has experienced minor population growth.

Table No. 1 CNMI Population by Island

	2000 (Year)	**2010**	**2016**
Saipan	62,392	48,220	49,820
Tinian	3,540	3,136	3,160
Rota	3,283	2,527	2,720

As part of the Public Land Use Plan, John M. Knox & Associates, Inc. prepared a report titled Population Forecasts for Master Planning by CNMI, DPL. (See: Appendix A) the report is summarized in further detail in chapter 4 of this report.

3. **Location and Density of Land Uses for CNMI**

The location of land uses for the CNMI are separated by island and identified on maps located in the GIS book.

- Saipan, including Mañagaha
  See Figure Nos. S-1 and S-17

- Tinian including Aguiguan
  See Figure Nos. T-1 and T-11

- Rota
  See Figure No. R-1

- Northern Islands
  See Figure Nos. N-1, N-2, N-3, and N-4

4. **Categories of Public Land Uses**

The DPL Public Land Inventory Maps have five (5) categories of public land uses (See Figure Nos. S-1, T-1, and R-1);

- Grant of Public Domain Public Land
- Designated/ In Use Public Land
- Undesignated/ Not In Use Public Land
- Leased Public Land
- Covenant/Military Leased Public Land

5. Public Land Inventory

The following tables provide the public and private land inventory for the islands of Saipan, Tinian, Rota, and the Northern Islands.

Table No. 2 Saipan Land Inventory

SAIPAN	Hectares	% of total Land	Public Land (Hectares)	% of Public Land
Total Land Area	11,913			
Private Land	5,822	49%		
Public Land	6,090	51%		
Grant of Public Domain Land			1,604	26%
Designated/ In Use Public Land			1,057	17%
Undesignated/ Not in Use Public Land			2,819	46%
Leased Public Land			558	9%
COVENANT Leased Public Land			52	Less than 1%

Table No. 3 Tinian Land Inventory

TINIAN	Hectares	% of total Land	Public Land (Hectares)	% of Public Land
Total Land Area	10,177			
Private Land	985	10%		
Public Land	9,179	90%		
Grant of Public Domain Land			649	7%
Designated/ In Use Public Land			517	6%
Undesignated/ Not in Use Public Land			1,163	13%
Leased Public Land			590	6%
MILITARY Leased Public Land			6,260	68%

Table No. 4 Rota Land Inventory

ROTA	Hectares	% of total Land	Public Land (Hectares)	% of Public Land
Total Land Area	8,693			
Private Land	2,412	28%		
Public Land	6,282	72%		
Grant of Public Domain Land			473	8%
Designated/ In Use Public Land			3,042	48%
Undesignated/ Not in Use Public Land			2,618	42%
Leased Public Land			149	2%

Table No. 5 Northern Island Land Inventory

Northern Islands	Hectares	% of total Land	Public Land (Hectares)	% of Public Land
Total Land Area	13,307	100%	13,307	100%
Private Land	0	0		0
Public Land	13,307	100%	13,307	100%

V. GOALS AND OBJECTIVES FOR THE CNMI PUBLIC LAND USE PLAN

1. GOALS

One mission of the DPL, as trustees for public lands in the CNMI, is to update and adopt a Comprehensive public land use plan that promotes cultural and economic growth for the benefit of our present and future generations. The updated plan shall provide guidance for the efficient and effective services in the management, use, disposition and development of public lands for the economic and social betterment of the CNMI.

2. OBJECTIVES

The Plan shall have the following objectives and components:

(1) Coordinate use and development of public lands with the plans, programs, and requirements of other Commonwealth agencies;

Discussion: The project team held meetings with various Commonwealth agencies, government departments, the Senate and House of Representatives, non-profits, local businesses and the community to gather information throughout the public input and review period. Information gathered included review of existing master plans, development plans, or any guidance documentation helpful in writing this plan update. The development of public lands will be in compliance with the plans, programs, and requirements of other Commonwealth agencies.

(2) Identify all public lands and priority of uses;

Discussion: GIS Maps within this plan update identify all public lands in the CNMI. The public outreach meetings and survey responses indicated that environmental protection and conservation of CNMI natural and historical and cultural resources are the general public's priority uses for public land. Additionally priority uses for public land include Homesteads, critical infrastructure and public services such as hospitals, schools, government facilities, utilities, economic development and visitor industry. Chapters 4-8 will discuss each of the major islands and the Northern Islands in more detail and the Future Land Use Map for each of the islands identify locations for future priority uses of public land.

(3) Identify and reserve suitable lands for homesteads;

Discussion: The Future Land Use maps for the islands of Saipan, Tinian, Rota, and the Northern Islands identify potential suitable lands for homesteads.

(4) Identify and reserve lands that contain resources critical to the Commonwealth, such as but not limited to, springs suitable for producing potable water, groundwater aquifers that need protection, potential sites of municipal quarries, current and future sites for government buildings, habitat mitigation areas, wetlands, prime public recreation areas, potential school sites, potential hospital sites, and potential transportation corridors;

Discussion: As noted, the GIS Maps within this plan update identify all public lands in the CNMI. The public outreach meetings and survey responses determined that critical resources are to be protected and reserve lands shall be identified. Chapters 4-8 will discuss each of the major islands and the Northern Islands in more detail and the GIS maps for each of the islands identify locations for critical resources on public land.

(5) Identify and reserve lands that should be made available to private developers for generation of revenue;

Discussion: GIS Maps within this plan update identify priority uses for public land including economic development and visitor industry. Chapters 4-8 will discuss each of the major islands and the Northern Islands in more detail and the Future Land Use Map for each of the islands identify locations for future economic development uses on public land.

(6) Identify lands that should be made available for exchange in order to improve the manageability and value of the public land holdings and other public purposes such as the acquisition of rights of way; and

Discussion: Where applicable, lands available for exchange are identified on the Future Land Use Map for each island. Additionally, Chapters 4-8 will discuss the opportunity for exchange land on each of the major islands and the Northern Islands in more detail.

(7) Identify lands that need special handling due to the presence of hazardous materials, dangerous structures, or other special circumstances.

Discussion: The Hazards Map for each of the major islands were developed in consultation with Myounghee Noh & Associates, L.L.C to identify lands that need special handling due to the presence of hazardous materials, dangerous structures, or other special circumstances. Chapters 4-8 will discuss each of the major islands and the Northern Islands in more detail including accompanying GIS maps.

(8) Encompass all the lands of the Commonwealth of the Northern Mariana Islands.

Discussion: The Plan encompasses all land of the CNMI, however the GIS mapping is limited to the islands of Saipan, Mañagaha, Tinian, Aguiguan, Rota, Anatahan, Agrihan, Pagan and Alamagan. The remaining island of the CNMI are not part of the GIS mapping exercise because they are conservation land or not intended to be inhabited within the 5-10 year planning horizon.

VI. SOCIO-ECONOMIC FORECAST

1. POPULATION TRENDS/PROJECTIONS

As part of the Public Land Use Plan, John M. Knox & Associates, Inc. prepared report titled *Population Forecasts for Master Planning by CNMI, DPL.* (See: Appendix A) the key purposes of the report were:

1. Estimates of "NMD" (Northern Marianas Descent – Chamorro and/or Carolinian) population and Homestead Award Eligibility for 2028, by island.

2. Total Population estimates for 2028, by island, to guide other plan development such as governmental services, infrastructure, conservation and recreation needs.

3. A *secondary* Model purpose involves job estimation which is a critical topic in the CNMI.[1] However, the Model emphasis on NMD population projection requires primary attention to things like natural population increase and net migration age-sex distribution.

The population projections used in the model considered three (3) different scenarios of economic growth for the main inhabited islands of CNMI – Saipan, Tinian, and Rota. The three (3) scenarios are:

Scenario A is a High-Growth scenario. For Saipan, it flows from optimistic visitor arrival scenarios developed for the Marianas Visitors Authority (MVA) in a January 2017 report by consultants Horwath HTL.[2] For Tinian, it assumes two casino hotels and construction of both military training facilities and a divert airfield. For Rota, it assumes three small upscale hotels.

Scenario B is a Medium-Growth scenario, with limited change. For Saipan, it assumes visitor arrivals plateau at the level considered "sustainable" (in terms of infrastructure capacity) in the Horwath report. For Tinian, it assumes just one casino hotel plus military activities. For Rota, it assumes one upscale hotel.

[1] This chapter was completed in January 2018, before any resolution of the CW-1 visa issue.
[2] Horwath HTL. *Tourism Development in the US Commonwealth of the Northern Mariana Islands: A Feasibility & Sustainability Study.* Prepared for the MVA. January 2017.

Scenario C is the only one assuming phase-out of CW-1 visa workers and probable attendant economic devastation – a Poor/Negative scenario. Saipan visitor arrivals would plunge, and then slightly recover. Rota and Tinian would have minimal budget-hotel development, and Tinian would be assumed to have the military training but not the divert airfield. (See: Appendix A)

The Model estimates the number of Eligible NMD adults (including those who may already have awards) as the sub-set of total NMD population who are not disqualified due to being married to an NMD spouse and who meet the eligibility criteria of not being current homeowners and having household incomes under $70,000. Historical research established that NMD net migration patterns have been much less responsive to changes in economic conditions than other CNMI population groups. (See: Appendix A)

Figure 40 to Figure 42 of the population forecast provided in Appendix A show Model estimates for each island, by scenario. For the 2028 target year, Saipan estimates vary from 4,691 to 5,038; Tinian, from 382 minimum to 409 maximum; and Rota, a similar range of from 368 minimum to 421 maximum. On a CNMI-wide base, the 2028 numbers vary from 5,487 to 5,869.

There are important differences between these population-based estimates and data obtained from DPL about awards already made. For Saipan, the estimated number of eligible NMD applicants (including any who may already have received awards) ten years from now is far greater than the number of awards as of 2017. But on Tinian and particularly on Rota, there have already been far more awards made than the estimated future number of eligible applicants. The Rota figure is roughly equal to the island's current population.

Table No. 6: Homestead Awards as of 2017 Versus Estimated 2028 "Eligible NMD"

	Saipan	Tinian	Rota	Total
TOTAL Homesteads Awarded by 2017:	**1,997**	**912**	**2,597**	**5,506**
Elligible NMD Applicants by 2028 (Scenario A)	5,038	409	421	5,869
Elligible NMD Applicants by 2028 (Scenario B)	4,769	366	368	5,503
Elligible NMD Applicants by 2028 (Scenario C)	4,691	382	413	5,487

It should be understood that some of the awards made by DPL may have lapsed (due to death of awardees with no heirs). Additionally, for Saipan, about 400 homesteaders who have received agricultural lots under the Homestead Waiver Act remain eligible for

village lots on the island, though without further research there is no way to know if a homesteader has already been awarded both.

Total Population

Total population was calculated as the sum of specific estimates on each island of three different components: (1) NMD; (2) Non-NMD Residents of CNMI; and (3) (Foreign) Non-Residents. Historical data indicate that population levels for the latter two components – which represent the majority of the CNMI population – have varied much more greatly as prevailing economic conditions changed.

Therefore, the total population levels for different islands show much greater variation according to the economic scenarios. Of the population forecast show these estimates for Saipan, Tinian, and Rota by scenarios. Saipan estimates for 2028 vary from a low of 40,457 to a high of 67,414; Tinian, from 2,325 to 8,707; and Rota, from 2,284 to 3,577. On a CNMI-wide basis, the numbers add to represent a range from 45,066 to 79,698.

These numbers are significantly different by scenario, and that is because of the wide range of economic futures that now appear possible for the Commonwealth. The most optimistic Scenario A – primarily driven by some of the visitor arrival assumptions in the Horwath Report commissioned by the Marianas Visitor Authority – assumes ongoing strong increases in tourism (and, implicitly, some sort of solutions to potential infrastructure and labor constraints, as well as political support by residents).

By contrast, the essentially catastrophic Scenario C is based on an equally possible future, characterized by loss of CW-1 workers and a reduction in tourism equivalent to what could happen if the Chinese market is blocked by elimination of "paroles" for visitors from China.

In this much greater range of possibilities (compared to the Eligible NMD figures previously summarized), the minimal 2028 Scenario C number is 64% of the maximal Scenario A number for Rota, 60% for Saipan, and just 27% for Tinian. The range is relatively greater for Tinian because economic activities proposed for that island – particularly casino-hotels, but also military activities – is so wide, especially in comparison to existing population. These activities could involve labor demand far in excess of the island's supply and so require substantial in-migration.

The population forecast report has attempted to stress not only the CNMI's great uncertainty over economic futures, but also data limitation challenges facing Model development and validity.

The Model could be modified and re-used in future years once 2020 Census data become available. However, this assumes that:

- The 2020 Census for the CNMI overall includes the detailed race/ethnic and other characteristics normally gathered in the American Community Survey (ACS). The Census Bureau has not conducted the ACS in the CNMI or American Samoa in inter-censal years – the only two U.S. areas for which ACS numbers have not been collected. It is likely but not certain that the ACS will be done in CNMI in 2020.

- These data will actually be available (either as tables or in Public Use Microdata Samples [PUMS]) in ways that permit separating age-sex characteristics for each of the three key population components considered here – i.e., NMD, Non-NMD CNMI Residents, and (Foreign) Non-Residents. That availability needs to be by island.

Whether directly or through the Central Statistics Division, it is suggested that DPL stay in touch with both the Census Bureau and its Congressional delegate to monitor debates in Congress about adequate funding and questionnaire content for the 2020 Census.

VII. PUBLIC LAND USE PLAN FOR SAIPAN

1. OVERVIEW

Saipan is the most inhabited island in the CNMI and includes the Island of Mañagaha. As should be expected, the plan for the public use of lands of Saipan differs from Tinian and Rota, a key issue is that Saipan has significantly less available public land relative to the population. Suitable public lands are in limited supply.

2. POPULATION TRENDS/PROJECTIONS

The population of Saipan has experienced growth over the last few decades including a peak population in 2000 of 62,392 people. After the garment industry left the CNMI the island population shrank to 48,220 people by 2010. The 2016 population of Saipan was 49,820 people. Based on historical data and population trends and the CNMI Household Income and Expenditures Survey (HIES) report, total projected Saipan population in **2028** by scenario is:

- Scenario A 67,414 people
- Scenario B 50,559 people
- Scenario C 40,457 people

3. ECONOMIC AND EMPLOYMENT PROJECTIONS

As part of the Public Land Use Plan, John M. Knox & Associates, Inc. prepared report titled *Population Forecasts for Master Planning by CNMI, DPL.* (See: Appendix A) While Saipan legalized casino gambling and issued a license to the Macau-based Imperial Pacific International Holdings Inc. (IPI) for a large casino and hotel soon thereafter (in 2014), only the casino had opened as of 2019. The adjacent hotel (for which construction was expected to finish by August 2018), has now been pushed back to August 13, 2023, due to constraints on construction labor supply. IPI proposes a large "Phase 2" of its investment – including an additional casino, hotels, shopping, and other attractions, potentially in the Marpi area. In consideration of construction labor supply limitations, the initiation and completion date for "Phase 2" is uncertain within the time horizon of this Plan.

There are currently four hotels or condo-tels under construction on Saipan, and five additional with permits under review at the Bureau of Environmental and Coastal Quality (BECQ), totaling a future inventory (if all constructed) of over 2,200 additional rooms on the island. These new rooms would require an estimated 2,000 employees to operate. Again, however, there is no certainty that all projects "Under Review" will be initiated or completed. Sustained long-term demand for additional units is also uncertain at this time.

The nature of tourism is changing in Saipan. Apartment-based vacation rentals (not counted in MVA lodging inventories) appears to be a significant factor. Some new projects under development are limited-service type "condo-tels" requiring less labor to operate than full-service hotels.

Finally, Senate Bill 20-35 was unanimously passed by the Senate which extends land leases for hotel properties to a combined 55 years. (In general, off-island investors have long expressed concern over the relative brevity of 40-year leases permitted to non-NMD lessees.) With this new certainty, owners of major properties are more likely to invest in repairs and renovations, contributing to enhancement and possible expansion of the hotel inventory in Saipan.

4. PUBLIC LAND USE REQUIREMENTS

The island of Saipan is the only island in the CNMI that has zoning in place. The future use of public lands including civic uses, village and agricultural homesteads and proposed public facilities are subject to the rules and regulations administered by the DPL. A map showing the existing public lands of Saipan is provided in Figure No. S-1. The Land Use Classifications of Saipan are provided in Figure No. S-2.

5. NATURAL RESOURCES

Many of Saipan's conservation areas are located along the coastline in designated conservation areas. These conservation lands contribute to the quality of life on Saipan, attract visitors and provide habitat for a variety of plant and animal species. Conservation areas shall be maintained and new areas set aside when possible to preserve the islands natural environment. (See: Figure Nos. S-9 – S-11)

Saipan has several inland wetlands located along the western coast of the island. These wetlands shall be preserved in their current locations as part of the natural drainage system for the island. (See: Figure No. S-12)

6. CULTURAL AND HISTORICAL PRESERVATION

Saipan has a rich cultural history and numerous sites listed on the National Register of Historic places including several Latte Stone Sites, and structures from the time of Japanese and US Military occupation of the island. The Kalabera Cave is an important part of Chamorro History and is identified as a cultural site. The Island of Mañagaha is a Historic District and popular tourist destination operated by DPL. The Plan update recommends to continue preservation of these significant sites.

During the public outreach process, preservation of cultural and historically significant sites was a priority of the residents of the CNMI as it provides a way for current and future residents to connect with the past. Preserving significant historic sites on Saipan has been a priority of residents based on feedback at public meeting and survey response.

In addition to historically and culturally significant sites, public cemeteries are protected and maintained on all islands under public law 17-38.

7. NUISANCE ACTIVITIES/HAZARDS

Nuisance activities on Saipan include landfills for solid waste, solid waste transfer stations, hazardous waste storage, power generation, correctional facilities, wastewater treatment plants and airports.

The Saipan International Airport is located in the southern portion of the island and currently no expansion is planned. The Marpi Landfill site is currently operational and has capacity for expansion to meet the future needs of Saipan for the purposes of this Public Land Use Plan update.

Myounghee Noh & Associates, LLC (MNA) is an environmental consulting company that provided research is support of the Plan update. Their work aimed to identify lands that may need special handling due to environmental concerns, such as presence of hazardous materials or other special circumstances including cultural, natural, and

biological resources, and unexploded ordinances of environmental concern. (See: Appendix B)

Twenty five (25) Formerly Used Defense Sites (FUDS) were identified by MNA in their research. Twenty two (22) FUDS sites identified on the island of Saipan include but not limited to the Saipan Tanapag Fuel Farm site, Kagaman Airfield dump site, Kobler Naval Supply Center, American Memorial Park, and Isley field. The FUDS program is the responsibility of the Department of the Defense (DOD) to investigate and environmentally restore these properties that were owned, leased to, or possessed by the United States. (See: Figure No. S-3.1)

For the island of Saipan, an inventory of data is available from the Environmental Protect Agency (EPA) that provide the locations of toxic releases, and sites of concern. A GIS map has been prepared to identify these sites. (See: Figure No. S-3.2) In addition to the EPA data, DPL has identified additional sites of concern. (See: Figure No. S-3.3) Sites of concern identified by DPL are wastewater treatment plants, powerplant substations, and landfills.

The island of Saipan also contains brownfield hazardous substances and petroleum sites. Hazardous substances include unexploded ordinance in the northern portion of the island at the former Marpi Point field and Saipan North field. (See: Figure No. S-3.4) The brownfield hazards map also provides location of underground and above ground storage tanks including the Tanapag Fuel Farm and Sadog Tasi tank site.

There are no Volcanic Hazards on the Island of Saipan.

8. PUBLIC FACILITIES

Public facilities include government offices, hospitals, ports facilities, schools, roads, police and fire services. On Saipan, government offices are primarily located in an area known as Capitol Hill and other public facilities are located in Garapan and along the western coast of the island. (See: Figure No. S-2.)

In January 2019, The Board of Education announced its first CIP project will be the relocation of the Hopwood Middle School campus from its Afetnas campus to a lot in the As Perdido area. The Hopwood campus sustained major damage during the 2018 Super Typhoon Yutu. Public schools on Saipan located in the Tsunami Inundation zones should be considered for relocation to protect the health, safety and welfare of the students, faculty and staff. (See: Figure No. S-13)

9. COMMERCIAL USES

Commercial activities such as hotels and resorts are located on private and public lands that generate revenue through leases. Saipan is the capital of CNMI and therefore has the most commercial uses of any of the islands. Commercial uses are primarily located in the urban core of Garapan and in surrounding suburban villages. Businesses are sparsely located within less developed areas in-between village centers. Saipan has numerous vacant buildings and to address the problem the recommendation of this Plan update is to establish a method to reuse vacant buildings or demolish buildings that are no longer habitable.

Blight and dilapidated buildings are a significant issue of concern within the CNMI. The absence of real property tax eliminates any sense of urgency in land owners to operate a property at its highest and best use. Making no improvements or corrections to dilapidated or compromised structures, or to clean up rubbish or rubble is a practical economic decision because there is no immediate financial cost to maintain an unproductive parcel or structure.

DPL could choose to interpret the negative effect that blight has on property values as a determent to the land assets held in trust by property owners. In this light it would be appropriate for DPL to work with the Legislature and other CNMI agencies to establish rules and procedures to address blight issues more directly.

Options could include legislation to allow for the cancelation of private leases on private land when a leaseholder is failing to maintain a property that creates a health safety and welfare concern for the general public. These approaches could also be considered for private land itself where no lease exists and owners display no interest in maintaining private property to a basic standard which results in a negative effect on the health safety and welfare to the overall community.

Potential negative impacts form blighted properties include but are not limited to, eyesores, reduction in property value, location for criminal activity, fire hazard, illegal dumping location, ground pollution and source of wind borne hazards during a typhoon or significant storm event.

While real property tax would be a motivating force for land owners to ensure that properties are active and viable in order to be self-sustaining, it could also have the negative and unintended consequence of driving NMD families from their properties for inability to pay taxes. A mechanism for tax exemption from any village homestead that is occupied full time by a family member or any Agricultural Homestead that is in productive agriculture could provide relief from financial hardships of land tax.

Visitors to the CNMI generate positive impressions of their experience when the CNMI is cleaner and tidier than their home community and generate negative impressions when the CNMI is less clean and tidy than their home community. Establishing the CNMI as a world class visitor destination will require the maintenance and protection of the urban and natural areas and should be an issue of interest.

10. LOCATION AND AMOUNT OF PUBLIC DEVELOPABLE LAND ON SAIPAN

Public land inventory is determined by current use of public lands and the existence of vacant public land. Public lands that are surrounded by existing development shall be developed to complement the existing surrounding uses. Public lands currently used for agricultural maybe subject to development if found to be unproductive. Finally land in excess of 10% slope is generally not appropriate for development due to cost.

The island of Saipan has approximately 2,819 hectares of available public lands, however due to topography and natural resources, Saipan has approximately 564 hectares of land with a slope less than 10% suitable for development such as public facilities, village homesteads or commercial uses. (See: Figure Nos. S-13.1, 13.2, 13.3)

11. HOMESTEADS

In Saipan as of January 2019 the total deeded Agricultural homesteads were 400 lots and Village homesteads were 1,875 lots. The total permitted Agricultural homesteads was 0 lots and Village homesteads was 122. Homestead lots that have been "permitted must go through a three (3) year probation period before the lot is deeded". According to the current policy the size of a village homestead lot does not exceed 1,000 square meters and the agricultural homestead lot does not exceed 10,000 square meters (1 hectare).

In Saipan, the 2017 DPL Annual report states that there are currently 2,576 pending village applicants and 0 agricultural applicants due to the moratorium. The DLP identified I'denne and As Gonno areas as suitable future homestead locations for approximately 400 units. (See: Figure S-14.1, 14.2, and 14.3) The proposed village homestead development at these two (2) sites is not adequate to provide homestead lots to pending applicants for Saipan.

The recommendation of this Plan update for the homestead program on Saipan is to no longer issue agricultural and Village homesteads continuing the moratorium of the homestead program on Saipan. Future Plan updates should consider potential locations identified on the future land use map and consider reducing the minimum lot size of village homesteads.

A second solution to providing more village homesteads to residents on Saipan is to allow multi-family dwellings as village homesteads. This option would result in an increased density in Saipan and should be developed concurrently or after infrastructure is in place. During the public outreach period the team received feedback that there are some residents interested in this option.

12. FUTURE LAND USES

For the island of Saipan, future uses on public land in the next 5-10 years include identifying the future Kagman Reservoir, identification of a potential village homestead site in coordination with DPL staff, a potential sites for a future wastewater facility, new school sites in the North and South portions of the island in an effort to move public schools out of the Tsunami Inundation Zone. Additional uses include potential locations for renewable energy on public land, civic uses near Garapan, and potential locations for a future Kagman Wastewater treatment plan. (See: Figure Nos. S-15.1-15.2 and 16.1-16.3)

During the public outreach process various stakeholders and community members provided input to identify DPL lands appropriate for lease to private developers on Saipan. The future land use map (See: Figure No. S-15.1-15.2) identifies several DPL properties in close proximity to the airport that are identified for lease to private developers. This Plan update is not recommending new hotel development on Saipan.

Additionally the project team identified future parcels of public land that are small in size and could be ideal location for public uses requested by government agencies

during the public outreach process. The proposed uses on the Small Parcel Public Use Maps are 1) Maintenance for equipment and government vehicle storage repair, 2) Solid Waste Convenience Stations located throughout the island, and 3) Nurseries for trees used in highway beautification projects around the Island of Saipan. (See: Figure Nos. S-16.1-16.3)

The island of Mañagaha is a historic District and part of Saipan. The recommendation of the Plan update is to continue use of the Island as a destination and revenue generator for the DPL.

The above listed land uses were located based on criteria such as public lands with less than 10% slope, hazards, flood hazard, historical sites, protected habitats such as wetlands and conservation areas, vegetation and soil types. Public lands for future development were identified on publicly owned parcels that would not disrupt the natural environment. (See: Figure Nos. S-2 – S-12)

VIII. PUBLIC LAND USE PLAN FOR TINIAN

1. OVERVIEW

Tinian is approximately 5 nautical miles southwest of Saipan, from which it is separated by the Saipan Channel. It has a land area of 39 square miles, with its highest elevation at Mount Lasso at 561 feet. The island of Aguiguan (Goat Island) is also part of the Tinian District and is currently uninhabited. A substantial portion of Tinian has been occupied by the U.S. Military for decades. The Military currently has plans to continue use of the island for military training including live firing ranges. Tinian has a variety of flora and fauna, and limestone cliffs and caves. There is a variety of marine life and coral reefs surrounding the island.

2. POPULATION TRENDS/PROJECTIONS

As part of the Public Land Use Plan, John M. Knox & Associates, Inc. prepared report titled *Population Forecasts for Master Planning by CNMI, DPL.* (See: Appendix A) The population of Tinian has experienced growth over the last few decades including a peak population in 2000 of 3,540 people. After the garment industry left the CNMI the island population slightly decreased to 3,136 people by 2010. By 2016 the population of Tinian was 3,160. Based on historical data and population trends and the CNMI Household Income and Expenditures Survey (HIES) report, total Tinian population in **2028** is:

- Scenario A 8,707
- Scenario B 5,779
- Scenario C 2,325

3. ECONOMIC AND EMPLOYMENT PROJECTIONS

The Tinian Dynasty Hotel & Casino opened in 1998. It was the only casino in CNMI for many years, but closed in 2015. The property remains closed as of January 2019. According to data provided by BECQ, most of CNMI's future planned labor demand is for development on the island of Tinian, where two other casino resorts have been

proposed, with an estimated labor demand of 6,359 workers for operations – more than twice the island's population in 2016. Due to past volatility in economic growth and decline, likelihood of any or all of these project materializing is uncertain.

- Alter City Group Holdings Ltd. plans a casino complex accompanied by a large resort.
- Bridge Investment Group proposes a Titanic-themed casino on the coast.
- The Dynasty could be renovated if sold (but there is a lien on the property to pay $75 million fine, which is reportedly a major obstacle to finding investors, though there is also the possibility that the amount could be negotiated down).

As detailed further in Appendix A there are also critical questions about the compatibility of tourism with proposed military activities. These considerations could affect the likelihood of proposed developments becoming a reality.

4. PUBLIC LAND USE REQUIREMENTS

Land zoning has not been enacted on the island of Tinian. Public land available on Tinian is limited to the southern portion of the island because the U.S. Military occupies the northern portion of the island. The future use of public lands including civic uses, village and agricultural homesteads are subject to the rules and regulations administered by the DPL and other agencies such as the Coastal Resources Management Office (CRM) and the Bureau of Environmental Coastal Quality (BEQC). A map showing the existing public lands of Tinian is provided in Figure No. T-1.

5. NATURAL RESOURCES

The natural resources on the island of Tinian such as drinking water sources are to be protected for the public use. Many of Tinian's conservation areas are located along the southern portion of the island. These conservation lands contribute to the quality of life on Tinian, attract visitors and provide habitat for a variety of plant and animal species. Conservation areas shall be maintained and new areas set aside were possible to preserve the islands natural environment. (See: Figure T-7)

6. CULTURAL AND HISTORICAL PRESERVATION

Tinian has a rich cultural history and numerous sites listed on the National Register of Historic places including the House of Taga, Petroglyph sites, and structures from the time of Japanese and US Military occupation of the island. The Landing Beaches-Ushi Field is a National Historic Landmark. The Plan update recommends to continue preservation of these significant sites.

During the public outreach process, preservation of cultural and historically significant sites was a priority of the residents of the CNMI as it provides a way for current and future residents to connect with the past. Preserving significant historic sites on Tinian has been a priority as noted with the adoption of Public Law 17-18 in 2010 designating the House of Taga as a Commonwealth Historical Site.

In addition to historically and culturally significant sites, public cemeteries are protected and maintained on all islands under public law 17-38.

7. NUISANCE ACTIVITIES/HAZARDS

Nuisance activities include landfills for solid waste, solid waste transfer stations, hazardous waste storage, power generation, correctional facilities, wastewater treatment plants and airports. On Tinian, nuisance activities include the airport, wastewater treatment facility, landfill and power plant.

Myounghee Noh & Associates, LLC (MNA) is an environmental consulting company that provided research is support of the Plan update. Their work aimed to identify lands that may need special handling due to environmental concerns, such as presence of hazardous materials or other special circumstances including cultural, natural, and biological resources, and unexploded ordinances of environmental concern. (See: Appendix B)

Twenty-Five (25) Army Corps of Engineers, Formerly Used Defense Sites (FUDS) were identified by MNA in their research. No FUDS sites were identified on the island of Tinian. (See: Figure No. T-8)

Unique to the island of Tinian, the U.S. Military prepared an OEIS which provided data and graphics on potential environmental concern and military munitions program sites. The majority of the sites are on the Military lease land where no residents live. (See: Figure No. T-8)

8. AGRICULTURE

Tinian has an active agriculture and ranching community including the Tinian Cattlemen's Association. As part of this Plan update public land was identified for use as future agricultural land including ranching. In reviewing land use classifications, soils, topography and vegetation public land was identified on the Future Land Use Map for future agriculture. (See: Figure No. T-10)

9. PUBLIC FACILITIES

Public facilities include government offices, hospitals, ports facilities, schools, roads, police and fire services. On Tinian, public facilities are primarily located in the southern portion of the island. (See: Figure No. T-1)

10. HOMESTEADS

Senate Bill 14-44 was passed in 2004 to reserve areas of public lands on the island of Tinian that are suitable for village and/or agricultural homesteads, specifically the Kastiyu and Carolinas areas; and for other purposes. This area has been identified on the Future Land Use Map. (See: Figure No. T-10)

Public Law 17-12 was passed in 2010 to designate public land on the island of Tinian for homestead purposes. Additionally Public Law 19-85 was passed in 2017 to establish a new public highway (Route 205) that would provide vehicular access to the future Kastiyu homestead area and provide multiple connections to the existing roadway network on Tinian.

In Tinian as of January 2019 the total deeded Agricultural homesteads were 384 lots and Village homesteads were 528. The total permitted Agricultural homesteads was 0 lots and Village homesteads was 0. Homestead lots that have been "permitted" must go through a two (2) year probation period before the lot is "deeded". The size of a village homestead lot does not exceed 1,000 square meters and the agricultural homestead lot does not exceed 10,000 square meters (1 hectare).

There are currently 528 village applicants and 474 agricultural applicants for Tinian. Prior to the drafting of this public land use plan the DLP has identified Kastiyu and Marpo Heights as suitable homestead locations.

The area known as Kastiyu has approximately 627 hectares of usable land for a combination of village and agricultural homesteads. (See: Figure T-10) The proposed village homestead development called Marpo Heights is anticipated to provide 427 village homestead lots. (See: Figure T-10) The available public land at these two sites is adequate to provide homestead lots to pending applicants for Tinian.

11. COMMERCIAL USES

Commercial uses on Tinian are relatively small scale and provide basic services and needs for the rural island. Development is primarily located in the southern portion of the island near schools government services and businesses. Several small businesses, such as restaurants, are sparsely located within less developed areas in-between village centers.

12. LOCATION AND AMOUNT OF PUBLIC DEVELOPABLE LAND ON TINIAN

Public land supply is determined by current use of public lands and the existence of vacant land. Public lands that are surrounded by existing development should be developed to complement the existing surrounding uses. Public lands currently used for agricultural maybe subject to development if found to be unproductive. Finally Land in excess of 10% slope is generally not appropriate for public development due to costs.

There are approximately 1,163 hectares of available public lands on the island of Tinian, however due to topography, natural resources or other disqualifying characteristics, Tinian has approximately 627 hectares of designated public land with a slope less than 10%, not in the Military Lease area and suitable for development such as village or agricultural homesteads. (See: Figure No. T-7)

13. FUTURE LAND USES

For the island of Tinian, future use of public lands proposed in this plan update including a location in San Jose for civic uses, roadway development (Route 205), village and agricultural homesteads in Kastiyu and Carolina areas, future agricultural use land on the eastern side of the island, and public land identified for economic development in the southern portion of the island. New development of public land is subject to the rules and regulations administered by the DPL and other agencies such as the Coastal Resources Management Office (CRM) and BEQC. (See: Figure No. T-10)

The area known as Kastiyu is approximately 627 hectares in size, which could provide a large quantity of village and agricultural homestead lots (See: Figure No. T-7) and the proposed village homestead development of Marpo Heights is anticipated to provide approximately 427 village homestead lots. (See: Figure No. T-8) The available public land at these two sites is adequate to provide homestead lots to pending applicants for Tinian.

The island of Aguiguan is part of the Tinian District and during public meetings on Tinian in 2018 the future of the island was discussed. The island has a goat population and in order to protect an endangered bird species a fence will be placed in apportion of the island to keep the bird population protected. Additionally it was mentioned that Aguiguan could be used for hunting or even eco-tourism. At the time of this Plan update, no future land uses are proposed on Aguiguan during the planning horizon.

The above listed land uses were located based on criteria such as lands with less than 10% slope, vegetation and soil types that guided the selection of parcels. (See: Figure Nos. T-2-6)

IX. PUBLIC LAND USE PLAN FOR ROTA

1. OVERVIEW

Rota (*Luta*) is the southernmost island of the (CNMI). It lies approximately 40 nautical miles north-northeast of Guam. Sinapalo village is the largest and most populated followed by Songsong village.

2. POPULATION TRENDS/PROJECTIONS

The population of Rota has experienced growth over the last few decades including a peak population in 2000 of 3,283 people. After the garment industry left the CNMI the island population slightly decreased to 2,527 people by 2010. As of 2016 population of Rota was 2,720. Based on historical data and population trends and the CNMI Household Income and Expenditures Survey (HIES) report, total Rota population in **2028** by scenario is:

- Scenario A 3,577
- Scenario B 2,868
- Scenario C 2,284

3. ECONOMIC AND EMPLOYMENT PROJECTIONS

Tourism has had an inconsistent history on Rota, causing some uncertainty for the future. Although a Gaming Commission exists on the island, there are no current likely prospects for casino development. (One proposal resulted in a lawsuit for the Commission, recently settled.) Discussions with the public and government officials for this Public Land Use Plan update suggest that small upscale eco-tourist lodges are now the preferred type of long term tourism development.

4. PUBLIC LAND USE REQUIREMENTS

Land zoning has not been enacted on the island of Rota. The future use of public lands including civic uses, village and agricultural homesteads are subject to the rules and regulations administered by the DPL. A map showing the existing public lands of Rota is provided in Figure No. R-1.

5. NATURAL RESOURCES

The natural resources on the island of Rota such as drinking water sources are to be protected for the public use. Additionally, Rota has recognized wildlife and shoreline conservation areas that are proposed to remain in conservation. (See: Figure No. R-2) Rota is a sparsely populated Island that has significant identified habitat areas. Critical Habitats and important ecological features are present on Rota and identified in Figure No. R-8. This Land Use Plan Update recommends maintaining conservation area where feasible.

6. CULTURAL AND HISTORICAL PRESERVATION

Rota has a rich cultural history and numerous sites listed on the National Register of Historic places including the Rota Latte Stone Quarry and structures from the time of Japanese and US Military occupation of the island. The Plan update recommends to continue preservation of these significant sites.

During the public outreach process, preservation of cultural and historically significant sites was a priority of the residents of the CNMI as it provides a way for current and future residents to connect with the past. Preserving significant historic sites on Rota is a priority.

In addition to historically and culturally significant sites, public cemeteries are protected and maintained on all islands under public law 17-38.

7. NUISANCE ACTIVITIES/HAZARDS

Nuisance activities include landfills for solid waste, solid waste transfer stations, hazardous waste storage, power generation, correctional facilities, wastewater treatment plants and airports. On Rota, nuisance activities include the airport, landfill and power plant. (See: Figure No. R-2.)

Myounghee Noh & Associates, LLC (MNA) is an environmental consulting company that provided research is support of the Plan update. Their work aimed to identify lands that may need special handling due to environmental concerns, such as presence of hazardous materials or other special circumstances including cultural, natural, and biological resources, and unexploded ordinances of environmental concern. (See: Appendix B)

Twenty five (25) Formerly Used Defense Sites (FUDS) were identified by MNA in their research. Three (3) FUDS sites were identified on the island of Rota. The FUDS program is the responsibility of the Department of the Defense (DOD) to investigate and environmentally restore these properties that were owned, leased to, or possessed by the United States. (See: Figure No. S-3.1)

8. AGRICULTURE

Rota has an active agriculture community and commercial farming is present. As part of this Plan update public land was identified for use as future agricultural homesteads. In reviewing land use classifications, soils, topography and vegetation maps there is limited crop land located on public land. (See: Figure No. R-3) There is a demand on Rota for agricultural homesteads and the team identified public land available on the Future Land Use Map for future agriculture homesteads. (See: Figure No. R-9)

9. PUBLIC FACILITIES

Other public facilities include government offices, hospitals, ports facilities, schools, roads, police and fire services. On Rota, public facilities are primarily located in the two population centers of Songsong and Sinapalo. (See: Figure No. R-2.)

10. HOMESTEADS

In Rota as of January2019 the total deeded Agricultural homesteads was 338 lots and Village homesteads was 652. The total permitted Agricultural homesteads was 110 lots and Village homesteads was 338. Homestead lots that have been "permitted" must go through a two (2) year probation period before the lot is "deeded".

In Rota, there are currently 696 village applicants and 619 agricultural applicants. The 2017 DPL Annual report states that homestead sites that are "in progress" are As Nieves, Gampap, and Dugi. Of the 244 lots available from these three (3) homestead developments, 69 lots have been delineated.

The size of a village homestead lot does not exceed 1,000 square meters and the agricultural homestead lot does not exceed 10,000 square meters (1 hectare).

On Rota one (1) area has been designated for proposed agricultural homestead development. The area known as Finafa was identified by DLP as a suitable homestead location in the 2017 Annual Report. Two (2) areas have been designated for proposed village homestead developments northeast and southwest of the Sinapalu village. (See: Figure No. R-9)

11. COMMERCIAL USES

On Rota commercial uses are limited to several small hotels, restaurants and convenience stores. Based on Public meetings on Rota some residents are hoping to promote small tourism-related economic development in the form of eco-tourism on the island.

12. LOCATION AND AMOUNT OF PUBLIC DEVELOPABLE LAND ON ROTA

The island of Rota has approximately 2,618 hectares of available public lands, however due to topography and natural resources and other disqualifying features, Rota has approximately 387 hectares of land with a slope less than 10% suitable for village homesteads development. (See: Figure No. R-6)

13. FUTURE LAND USES

For the island of Rota, future public land uses include identification of agricultural and village homesteads and a potential visitor and cultural center near wedding cake, to generate income from lease of the public land. Future uses also include a location near the Mayor's office to consolidate civic uses, potential solar farm site, and potential sites for power plant relocation towards a central location on the island. Finally the Future Land Use Map identifies an area along the southern coast of Rota that contains a small waterfall. It was a recommendation from the Rota residents that DPL investigate this area for potential land exchange to preserve this land for the public. (See: Figure No. R-7)

The above listed land uses were located based on criteria such as lands with less than 10% slope, vegetation and soil types that guided the selection of parcels. (See: Figure Nos. R-3-5)

X. PUBLIC LAND USE PLAN FOR NORTHERN ISLANDS

1. MASTER PLAN FOCUS

This Master Plan focuses on four (4) of the Northern Islands, specifically Agrihan, Pagan, Alamagan, and Anatahan which are intended for habitation, potentially within this plan's 5-10 year horizon. Analysis was not focused on islands which were not anticipated for the siting of homesteads within the plan horizon.

The project team was able to complete a trip to the Northern Islands in April 2018 with guidance of the Office of mayor of the Northern Islands and his staff. The team successfully visited the islands of Agrihan, Pagan, Alamagan, and Anatahan to evaluate the opportunities and challenges of re-establishing old communities on the northern islands. The project team included Chelu Photos, (*a local Saipan videography and photography company*) who conducted aerial photography on each islands with the use of remote control drones. The purpose of their work was to conduct aerial photography of sites identified for future agricultural homesteads. The aerial photos could potentially be used by DPL staff to generate topographic maps in the future.

Proposed land uses presented in this plan are based on consultation with Northern Island Community Members from the public meetings held in October 2017 and May 2018, meetings with the office of the Mayor of The Northern Islands, and review of The Northern Islands Development Plan published in April 2001.

2. OVERVIEW

For the time horizon of this comprehensive public land use plan update the islands of Agrihan Pagan, Alamagan, and Anatahan, were analyzed. The islands and atolls Farallon De Pajaros, Maug, Asuncion, and Guguan are recognized conservation areas containing critical habitats for endangered and or threatened species that will remain in conservation through the time horizon of this plan. The islands and atolls Farallon De Medinilla and Sarigan are not analyzed in this plan. (See: Figure Nos. N1-N4)

The 2001 Northern Islands Development Plan was prepared to establish more permanent settlements on the islands of Anatahan, Alamagan, Pagan, and Agrihan. The

plans goals include establishing homesteads, vital public services, and opportunities for economic development and programs.

3. POPULATION TRENDS/PROJECTIONS

Modeling the future population growth the Northern Islands was not included within the population projection analysis for the Land Use Plan, as there is high uncertainty about future with potentially conflicting proposals for the area existing. The DPL has begun surveying agricultural homestead lots on four (4) of the Northern Islands in an effort to allow people to return to the northern islands they previously inhabited.

There are currently approximately 400 individuals identified as displaced residents of the Northern Islands currently residing in the CNMI.

4. ECONOMIC AND EMPLOYMENT PROJECTIONS

As part of the Public Land Use Plan, John M. Knox & Associates, Inc. prepared report titled *Population Forecasts for Master Planning by CNMI, DPL.* However the report did not analyze the Northern Islands due to the lack of population and economic activity.

5. PUBLIC LAND USE REQUIREMENTS

The Northern islands of Agrihan, Pagan, Alamagan and Anatahan currently do not have zoning, or a land use guidance system in place at this time. Future agricultural homestead lots are subject to the rules and regulations of the homestead program administered by the DPL.

The DPL has surveyed eighty eight (88) agricultural homestead lots for distribution to those individuals wishing to return to Pagan. DPL has not surveyed land on the other northern islands. Future agricultural homestead sites on the other islands have been identified in the future land use maps (See: Figure Nos. N1-N4).

6. NUISANCE ACTIVITIES/HAZARDS

The U.S. military is preparing an Overseas Environmental Impact Statement (OEIS) to assess the potential effects new live-fire training on Pagan. The Military training activities may cause ecological damage to the pristine natural environment that exists in Pagan and limit the potential for future habitation and potential economic development activities such as eco tourism.

Myounghee Now & Associates, LLC (MNA) is an environmental consulting company that provided research is support of the Plan update. Their work aimed to identify lands that may need special handling due to environmental concerns, such as presence of hazardous materials or other special circumstances including cultural, natural, and biological resources, and unexploded ordinances of environmental concern. (See: Appendix B)

Thirty-Three (33) Formerly Used Defense Sites (FUDS) were identified by MNA in their research. One (1) site was identified on the island of Pagan as a potential site for potential inclusion in the FUDS clean-up program. The FUDS program is the responsibility of the Department of the Defense (DOD) to investigate and environmentally restore these properties that were owned, leased to, or possessed by the United States.

Volcanic Hazards are prevalent in the Northern Islands. Volcanic hazard summaries are documented by MNA in appendix D of their report and summarized below.

Agrihan: the highest of Marianas arc volcanoes and last erupted in 1917. This island is unmonitored by the USGS for seismic activity.

Pagan: Last erupted in 2012 and contains the largest volcano in the CNMI. The largest eruption of Pagan during historical times, occurred in 1981 and prompted the evacuation of all residents. This island is unmonitored by the USGS for seismic activity.

Alamagan: It is estimated that the last eruption was over 1,000 years ago. This island is unmonitored by the USGS for seismic activity.

Anatahan: The last eruption was 2008. This island was monitored by the USGS, however Monitoring Station was not operational as of August 16, 2017.

7. PUBLIC FACILITIES

Following the project team's visit to the Northern Islands, recommendations for locations of public facilities, primary infrastructure and services are provided for each of the four (4) islands below.

Agrihan

The recommendation for Agrihan is to provide a 20,000 square meter lot for the Mayor's office located near the former Village area in the southern region of the island. (See: Figure N-1) The community recommended that this office facility include an emergency shelter (typhoon-proof) and lodging for the Mayor's staff and agricultural homesteaders. While no additional public facilities are proposed within the planning horizon, it is this plans recommendation that DPL conduct a feasibility study for safe boat or canoe access to the island.

Pagan

The recommendation for Pagan is to provide a 20,000 square meter lot for the Mayor's office located near the surveyed homestead lots. The Mayor's office on Pagan is envisioned to be the most utilized office in the Northern Islands and the community recommended that the Pagan office facility include an emergency shelter(typhoon-proof), clinic, school house and lodging for the Mayor's staff and agricultural homesteaders. No additional public facilities are proposed within the 5-year planning horizon. (See: Figure N-2) Rehabilitation of the airplane runway and development of safe boat access were identified as priority projects for the community to return to Pagan.

Alamagan

The recommendation for Alamagan is to provide a 10,000 square meter lot for the Mayor's office emergency shelter (typhoon-proof) located in the Northern region of the island near the future primary agricultural homestead location. (See: Figure N-3) No additional public facilities are proposed within the planning horizon, however it is this plans recommendation that DPL conduct a feasibility study for safe boat or canoe access to the island.

Anatahan

The recommendation for Anatahan is to provide a 10,000 square meter lot for the Mayor's office located near the former Anatahan Village area in the Northwest region of the island with emergency shelter (typhoon-proof). (See: Figure N-4) No additional public facilities are proposed within the planning horizon, however it is this plans

recommendation that DPL conduct a feasibility study for safe boat or canoe access to the island.

8. HOMESTEADS

In consultation with the Office of the Mayor of the Northern Islands and at two (2) community meetings there was a desired to introduce the agricultural homestead program on the Northern Islands on Agrihan, Pagan, Alamagan, and Anatahan. The size of an agricultural homestead lot consists of a maximum area of 10,000 square meters (1 hectare). By law individuals are not allowed to construct a dwelling and live on an Agricultural homestead lot, therefore the Mayor's office site identified on each island will provide a shelter for residents while tending to the homestead lot.

The project team visited the islands in April 2018 and for each island homestead sites were identified as primary or secondary homestead sites. Primary homestead sites are sites that are most accessible and the most ideal for future homesteads. Secondary homestead sites are less desirable and difficult to access, however they are locations identified after primary homestead sites are fully occupied.

The following initial recommendations are based on visiting the islands and consultation with community members and the office of the Mayor of the Northern Islands.

Agrihan

Three (3) potential areas have been identified for proposed agricultural homestead development on Agrihan. The area located on the eastern edge of the island is approximately 83 hectares in size, the southeast homestead area is approximately 48 hectares in size and the southern homestead area is approximately 81 hectares in size.

Combined these proposed locations total 212 hectares. While the total number of homestead lots is anticipated to be less than the total land area, it is expected that Northern Island Agricultural Homestead subdivisions will be designed with rural standards.

After the project team visit to the Island of Agrihan it was determined the southern area as the primary future homestead site. (See: Figure N-1)

Pagan

One (1) area has been designated for proposed agricultural homestead development. The area known as Regusa is approximately 273 hectares in size and was identified as

the primary future homestead site. The DLP surveyed a subdivision of eighty eight (88) agricultural homestead lots ready for distribution to qualified applicants. (See: Figure N-2) It is expected that Northern Island Agricultural Homestead subdivisions will be designed with rural standards.

Alamagan

On the island of Alamagan two (2) areas have been identified for potential agricultural homestead development. The area to the north is approximately 58 hectares in size, the south area is 81 hectares in size. Combined these proposed locations total 139 hectares. After the project team visit to the Island of Agrihan it was determined the southern area as the primary future homestead site. (See: Figure N-3)

Anatahan

Anatahan is the northern island closest to Saipan and two (2) areas have been designated for proposed agricultural homestead development. The area to the Northwest is located at the site of the formerly inhabited Anatahan village and is adjacent to the Anatahan Landing and is approximately 38 hectares in size, the southern homestead area is 70 hectares in size. Combined these proposed locations total 108 hectares. After the project team visit to the Island of Anatahan it was determined the northwest area at the former Village is the primary future homestead site. (See: Figure N-4)

9. NATURAL RESOURCES

The Northern Islands and atolls Farallon De Pajaros, Maug, Asuncion, and Guguan are recognized conservation areas that will remain in conservation. Each of the Northern Islands are mostly unaltered natural habitat and this Land Use Plan Update recommends that development of the northern islands is limited to emergency and civic uses and agricultural homesteads.

10. COMMERCIAL USES

At this time there are no commercial uses in the Northern Islands. Previously, a permit to mine pozzolan, a basalt deposit that formed as a result of the 1981 Volcanic Eruption on Pagan is the only current commercial use in the Northern Islands. Some previous residents are hoping to promote small tourism-related economic development in the form of eco-tourism on the island of Pagan.

The Northern Island Development Plan identifies potential commercial uses to implement economic development programs in the Northern Islands starting in calendar year 2001. Examples of activities, included in the plan are eco-tourism, and local revenue generation by licensing commercial fishing, agriculture, and aqua culture. As mentioned there are no commercial uses in the Northern Islands.

The socioeconomic study conducted for the military OEIS mentions a 1978 Master Plan for Pagan drafted by the Office of Transition Studies and Planning which noted that exploitation of basalt deposits could be an economic development possibility for the island. However, the socioeconomic study concluded that "Analysis of market conditions and mining operation feasibility indicates that a pozzolan mining operation on Pagan would not be expected to reach profitability or provide an investor with an acceptable rate of return." [3] Former residents are hoping to promote small tourism-related economic development in the form of eco-tourism on the island of Pagan.

The difficulty of accessing the island will require infrastructure improvements such as establishing a drinking water system, repair of the runway for airplane use, and development of a port for easier boat access. These improvements are significant an not anticipated to occur within the next 5-10 years, therefore this Public Land Use Plan update is not recommending commercial development on the Northern Islands in the next five (5) years.

11. FUTURE LAND USES

Future land uses for the Northern Islands within this Land Use Plan update are limited to Agricultural Homestead sites and a mayor's office site. The purpose of the Mayor's office site is to function as a headquarters for the island and provide a habitable location to reside for those tending the agricultural homestead sites.

The location of potential future Mayor's office site and agricultural homestead areas have been identified on four (4) islands.

The area on Agrihan is approximately 212 hectares in size. (See: Figure N-1) The proposed Agrihan Mayor's office facility is proposed to include an emergency shelter (typhoon-proof) , and lodging for the Mayor's staff and agricultural homesteaders.

[3] U.S. Department of the Navy. Preliminary Draft (Version 3) *Socioeconomic Impact Assessment Study in Support if the Commonwealth of the Northern Mariana Islands Joint Military Training Environmental Impact Statement/Overseas Environmental Impact Statement.* 2015. P. 5. Available at: http://www.cnmijointmilitarytrainingeis.com/documents

The agricultural homestead area on Pagan is approximately 273 hectares in size. The DLP has surveyed a proposed subdivision of forty (40) lots agricultural lots in 2017. (See: Figure N-2) The proposed Pagan Mayor's office facility is proposed to include an emergency shelter (typhoon-proof), clinic, school house and lodging for the Mayor's staff and agricultural homesteaders.

The agricultural homestead areas identified on Alamagan is approximately 139 hectares in size. (See: Figure N-3) The proposed Alamagan Mayor's office facility is proposed to include an emergency shelter (typhoon-proof), and lodging for the Mayor's staff and agricultural homesteaders.

The agricultural homestead areas identified on Anatahan is approximately 108 hectares in size. (See: Figure N-4) The proposed Anatahan Mayor's office facility is proposed to include an emergency shelter (typhoon-proof) and lodging for the Mayor's staff and agricultural homesteaders.

XI. PLAN MANAGEMENT

1. INTRODUCTION

The Public Land Use Plan is a guidance document which is intended to be updated every five (5) years, which documents the objectives of outlined Public Law 15-02 which are necessary in the consideration and planning of capital improvements to provide adequate public facilities, infrastructure and homesteads, recreational opportunities and the preservation of critical resources which are essential for the growth of CNMI, the protection of public health and safety and the enhancement of natural and built environments.

2. ADMINSTRATION OF THE PUBLIC LAND USE PLAN

The primary means of implementing the public land use plan will be through the land use regulatory controls and programs. The existing regulatory control requiring the public land use plan is **Public Law No. 15-2,** which outlines the duties of the Department of Public Lands, which is established within the Executive Branch to manage and administer the Commonwealth's public lands under the provisions of Article XI of the Constitution.

Parallel to the Plan Document is the data that can be accessed, manipulated and visually analyzed using Geographic Information System GIS software. Use of GIS allows for ongoing analysis, and consideration between plan updates. This can be done on a daily basis, when changes occur on the ground or when additional data is made available.

3. IMPLEMENTATION OF THE PLAN

Implementation of the Public Land Use Plan update recommendations are primarily focused on critical infrastructure, future homesteads and public facilities which will require coordination between the Commonwealth agencies, the private sector, non-profits, and the community. Implementation mechanisms include planning and regulatory approaches, capital improvement programming, monitoring and evaluation. The CNMI's Capital Improvement Projects (CIP) program administered by the

Commonwealth Development Authority is an important framework to implement future land uses related to infrastructure and public facilities on public lands.

The completion of CIP projects such as roads, sewer and water will allow the future development of village homestead lots. Throughout the community outreach process on all islands, there were major concerns about the lack of infrastructure hindering homestead development.

A strategy to implement the Plan update policies related to infrastructure and public facilities is to prepare a **long range implementation program** to ensure that CIP project are scheduled, financed, and constructed in a timely manner.

The Plan update recommends the following policy statements with strategies for implementation.

1. Infrastructure Services Policy: The DPL plan update is responsible for determining areas where infrastructure and public facilities could be supported over the planning horizon. The future land use maps developed for each island within this Plan update identify locations for infrastructure and public facilities over the planning horizon.

2. Infrastructure Expansion Policy: Private Developers are typically responsible for infrastructure expansion costs associated with their projects. One consideration for DPL and the CNMI government is to impose an impact fee program fees designed to mitigate the impact of new development on infrastructure and public facility systems.

3. Infrastructure Deficiencies Policy: The CIP program funding is the responsibility of the CNMI government for funding operations and capital improvements to address existing deficiencies of CNMI owned and operated systems.

a. Using this Plan update and the CIP program, the CNMI government will be able to identify existing service deficiencies and projected operations and maintenance needs in the future.

b. The CNMI should consider alternate funding sources to be used to finance major CIP projects. Such alternatives include public private partnerships, special districts financing such as tax abatement or redevelopment districts.

4. MONITORING AND UPDATING THE CNMI PUBLIC LANDS GIS

Public Law No. 15-2, Section 107 Public Lands: Lease Enforcement and Other Requirements. "(d) The Department shall develop and maintain a land records system utilizing current technology. Maps of public lands shall be maintained in a Geographic Information System (GIS) that is compatible with GIS data being collected by other agencies. The land records system and maps will be made available to the public." Future GIS Data sets developed by government agencies shall be incorporated into the DPL database to maintain a current inventory of land use data for public use.

Accompanying this Public Land Use Plan update is a digital copy of the complete GIS data set, attribute tables, and maps compatible with ArcGIS software for future public land planning purposes and future updates to the Public Land Use Plan.

An obligation of DPL is to identify lands that should be made available for exchange in order to improve the manageability and value of the public land holdings and other public purposes such as the acquisition of rights of way. In analyzing existing GIS data for the completion of this Plan, it is apparent that including all parcels within the CNMI both private and public in a single comprehensive GIS system is necessary to efficiently analyze options and plan for critical public infrastructure or services which are anticipated to require exchange with private land owners.

It is the recommendation of this Plan update for DPL to coordinate with other CNMI agencies to incorporate the GIS data from multiple agencies into a single program available on the internet for public use.

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Appendix A

JOHN M. KNOX & ASSOCIATES, INC.

POPULATION FORECASTS FOR MASTER PLANNING BY CNMI DEPT. OF PUBLIC LANDS

Development and Results of Forecast Model

January 31, 2018

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1. FORECAST MODEL DEVELOPMENT AND DESIGN

1.1 Primary Purposes of Model

The key Model purposes were considered to be:

1. Estimates of "NMD" (Northern Marianas Descent – Chamorro and/or Carolinian) population and Homestead Award Eligibility for 2028, by island.

2. Total Population estimates for 2028, by island, to guide other plan development.

3. A potential *secondary* Model purpose involves job estimation. This is a critical topic in the CNMI right now.[1] However, the Model emphasis on NMD population projection requires primary attention to things like natural population increase and net migration age-sex distribution. Rough job estimates are used as a way to estimate population rather than as an end in themselves.

1.2 Overview of Model Components

The Model separately considers each of the three main currently inhabited CNMI islands – Saipan, Tinian, and Rota. For each island, there are three very different economic future scenarios:

A. ***Scenario A*** is a High-Growth scenario. For Saipan, it flows from optimistic visitor arrival scenarios developed for the Marianas Visitors Authority (MVA) in a January 2017 report by consultants Horwath HTL.[2] For Tinian, it assumes two casino hotels and construction of both military training facilities and a divert airfield. For Rota, it assumes three small upscale hotels.

B. ***Scenario B*** is a Medium-Growth scenario, with limited change. For Saipan, it assumes visitor arrivals plateau at the level considered "sustainable" (in terms of infrastructure capacity) in the Horwath report. For Tinian, it assumes just one casino hotel plus military activities. For Rota, it assumes one upscale hotel.

C. ***Scenario C*** is the only one assuming phase-out of CW-1 visa workers and probable attendant economic devastation – a Poor/Negative scenario. Saipan visitor arrivals would plunge, and then slightly recover. Rota and Tinian would have minimal budget-hotel development, and Tinian would be assumed to have the military training but not the divert airfield.

This range of possible outcomes is greater than typical for socio-economic forecasts, but reflects uncertainties about CNMI's future to be addressed later in this chapter.

[1] This chapter was completed in January 2018, before any resolution of the CW-1 visa issue.
[2] Horwath HTL. *Tourism Development in the US Commonwealth of the Northern Mariana Islands: A Feasibility & Sustainability Study.* Prepared for the MVA. January 2017.

Based on assumptions about (1) natural increase and (2) net migration in response to economic conditions, separate population results for each scenario are generated for three components of the overall population for each island:

- The NMD demographic which is key to DPL;
- Non-NMD residents (U.S. citizens or green-card holders); and
- Foreign Non-Residents (heavily but not entirely consisting of CW-1 workers and dependents).

1.3 NMD Homestead Awards and Eligibility Criteria

An eligible homestead applicant for a village or agricultural lot must be a (1) a person of Northern Marianas descent (NMD);[3] (2) someone who does not have any interest in land in the CNMI; and (3) someone who must not have the means to acquire a lot. A married couple (or living in common law) cannot be eligible for two lots and is merged into one application. Additionally, there is a maximum income/assets eligibility criterion that disqualifies those applicants who may not own interest in land in the CNMI, but who have sufficient income and/or assets to acquire a village lot in the CNMI. Annual gross income of more than $70,000 and/or assets valued at more than $150,000 disqualifies an applicant (even joint husband wife assets/income).

As of this writing (late 2017), a total of 3,895 homestead lots have been awarded (deeded) in the CNMI. An additional 1,611 lots are currently permitted (they have been awarded but are still under the 2 year probation period) but are likely to become deeded thereafter. This study's projected numbers of future eligible household heads (see Chapter 3, Section 3.4) are for the total NMD population, and do not subtract already awarded numbers below in Table 1.

Table 1: DPL Lots Awarded by Island, 1980-2017

	Saipan	Tinian	Rota	Total
Total Deeded	**1,875**	**912**	**1,108**	**3,895**
Village	1,875	528	652	3,055
Agricultural	400 [1]	384	456	840
Total Permitted	**122**	**0**	**1,489**	**1,611**
Village	122	0	338	460
Agricultural	N/A	0	110	110
TOTAL	**1,997**	**912**	**2,597**	**5,506**

Source: Department of Public Lands. November 2017.

Note: (1) Note: (1) The 400 Agricultural Lots in Saipan were awarded through the Homestead Waiver Act (HWA), as set forth in Public Law 2-13, § 3. It should be noted that if a person (or married couple) has been awarded an agricultural lot through the HWA, he or she is still eligible to apply for a village lot in Saipan.

[3] According to Article XII of the CNMI Constitution a NMD person is defined as someone "who is a citizen or national of the United States and who has at least some degree of Northern Marianas Chamorro or Northern Marianas Carolinian blood or a combination thereof."

1.4 Historical and Projected Population Data

Table 2 provides historical data on population counts or estimates for each island, while the subsequent Figure 1 shows various agencies' projections for future populations. These projections for the most part appear to have been developed on the basis of trends prior to the Saipan economic development boom of the past few years – hence largely assume fairly level or even significantly declining populations. Note the exception in Figure 1 is the Pacific Community's (SPC's) somewhat higher levels, including a 2016 figure that is arguably more consistent with recent economic growth. That is why Table 2 below contains two columns for 2016 – one ("2016A") with the published HIES overall and island figures (which hew closely to 2010 Census counts) and the other with the SPC 2016 total figure for CNMI, with all other "2016B" numbers following the HIES proportions reported by the CNMI's Central Statistics Division (CSD).

Note that NMD population has declined since 2000 (and subsequent analysis will show much of the gain from 1990 to 2000 was due to natural increase). This relative lack of response to economic change will have important consequences in the analysis.

Table 2: Local and Foreign Population by Island – 1990, 2000, 2010, and 2016

CNMI	1990	2000	2010	2016A	2016B
TOTAL Population	**43,345**	**69,221**	**53,883**	**53,890**	**55,700**
Permanent CNMI **Resident**	20,082	29,094	35,115	33,219	34,335
NMD	*17,181*	*21,784*	*19,971*	*18,249*	18,862
Non-NMD	*2,901*	*7,310*	*15,144*	*14,970*	15,473
Foreign **Non-Resident**	23,263	40,121	24,168	20,671	21,365

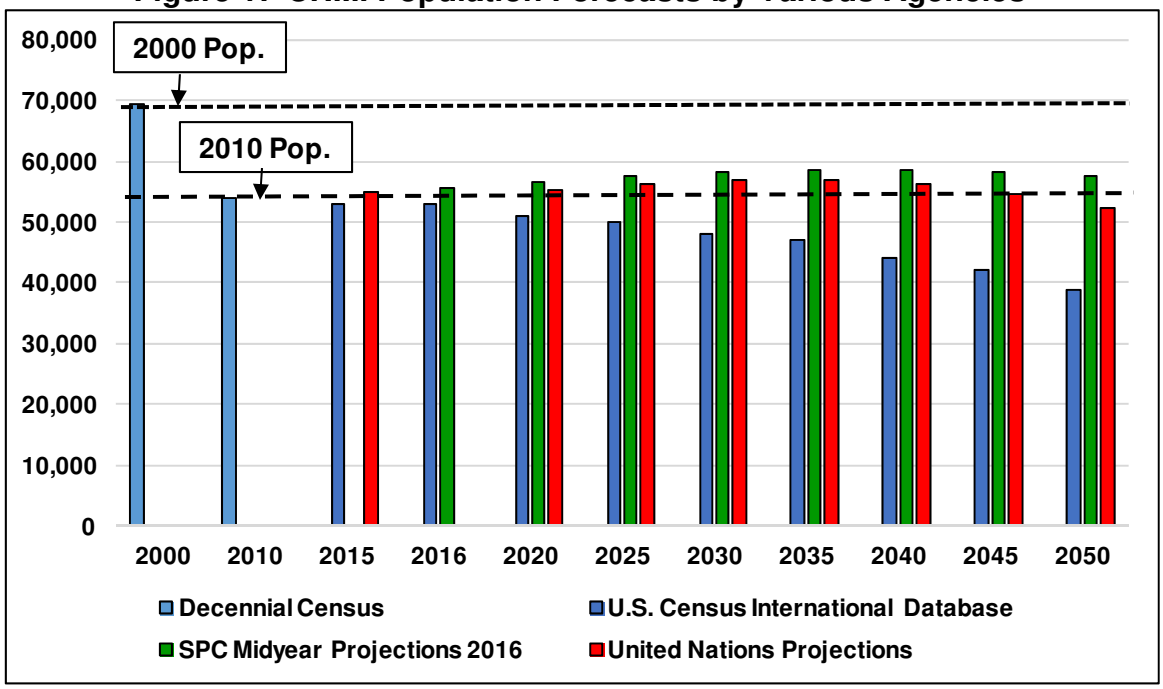
SAIPAN	1990	2000	2010	2016A	2016B
TOTAL Population	**38,896**	**62,392**	**48,220**	**48,200**	**49,820**
Permanent CNMI **Resident**	17,171	24,968	26,227	29,280	30,264
NMD	*14,416*	*18,016*	*16,933*	*15,758*	16,288
Non-NMD	*2,755*	*6,952*	*9,294*	*13,522*	13,976
Foreign **Non-Resident**	21,725	37,424	21,993	18,920	19,556

TINIAN	1990	2000	2010	2016A	2016B
TOTAL Population	**2,118**	**3,540**	**3,136**	**3,056**	**3,160**
Permanent CNMI **Resident**	1,286	1,897	1,782	1,950	2,016
NMD	*1,226*	*1,709*	*1,517*	*1,146*	1,185
Non-NMD	*60*	*188*	*265*	*804*	831
Foreign **Non-Resident**	832	1,643	1,354	1,105	1,143

ROTA	1990	2000	2010	2016A	2016B
TOTAL Population	**2,295**	**3,283**	**2,527**	**2,635**	**2,720**
Permanent CNMI **Resident**	1,595	2,229	1,706	1,989	2,053
NMD	*1,508*	*2,054*	*1,521*	*1,346*	1,389
Non-NMD	*87*	*175*	*185*	*643*	664
Foreign **Non-Resident**	700	1,054	821	646	667

Sources: Overall population figures from Census Data, U.S. Census Bureau Decennial Census 1990, 2000, 2010. For 2016A Data: Department of Commerce. Central Statistics Division (CSD). 2016 Commonwealth of the Northern Mariana Islands Household Income and Expenditures Survey (HIES) Report. April 2017. For 2016B, the overall CNMI population estimate is from the Pacific Community (originally the South Pacific Commission and still referred to as SPC), with assumed island figures based on HIES proportions. The breakdown by population component was provided by demographer and former Census Bureau employee Michael Levin, PhD, who assisted with the HIES project and analysis. We appreciate the CSD provision of the 2016 HIES dataset to Dr. Levin for this and other analyses in this report.

Figure 1: CNMI Population Forecasts by Various Agencies



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1.5 Initial Historical Research

Model design began with the simultaneous need to (a) address severe data limitations and particular uncertainty about CNMI economic futures (addressed in the following Section.1.6); and (b) conduct primarily Census-based historical research into historical research about the relationship between CNMI economic conditions and population dynamics (addressed in this section).

1. The study's primary focus on NMD population meant there was a need to specify natural increase and net migration patterns for that NMD group in particular, but also other population components as well. Therefore:

   - The overall population was necessarily divided into the three previously-noted components: (a) NMD; (b) Non-NMD Residents of CNMI, and (c) (Foreign) Non-Residents. (The latter group would be primarily CW-1 visa workers and dependents, though would likely include a small number entering the CNMI through other means.)

- A critical question for modeling was: "To what extent will economic change produce normal labor mobility (i.e., in-migration or out-migration) among NMD and Non-NMD Residents before there are effects on supply of foreign workers?" This is a particularly difficult modeling issue, because in reality the availability of U.S. workers (from Guam, the Freely Associated States, other American islands, or even the U.S. Continent) will depend on economic conditions in the source areas and the intensity of recruitment/training efforts by CNMI's government and employers. For modeling purposes, though, the available data are largely limited to historical evidence that can be used to indicate how much in- or out-migration was actually observed among different age-sex groups for NMD and Non-NMD residents during recent historical periods that somewhat parallel the economic scenarios to be used later in forecasting.

- Therefore, this first phase of Model development focused not on economic futures but rather on ***historical research*** into basics of population dynamics for each of these three groups. The ultimate purpose of this historical analysis was to try to understand probable ***net migration patterns*** of various population groups (NMD, Non-NMD, and Foreign Non-Residents) under different economic conditions that parallel those to be used for each scenario for future forecasting.

  In theory, this can be done by using presumed age-specific fertility and mortality rates to "age" the population observed in, say, 1990 for ten years to determine what it would be in 2000 if nobody moved in or out. The difference between these hypothetical 2000 age-sex numbers and the actual observed age-sex numbers from the 2000 Census is conventionally attributed to net migration, allowing understanding both of the *ratio* of migration to natural increase and also of the age-sex *characteristics* of in-migrants or out-migrants.

  Again in theory, the periods 1990-2000, 2000-2010, and 2010-16[4] represent overall economic conditions roughly comparable to a "high-growth" economic scenario (the 1990s, which were a boom period for the CNMI), a "collapse" scenario (the 2000s, when garment factories all closed and the Great Recession hit), and an intermediate scenario (the 2010s to date, during which there was both initial decline and recent strong recovery – net slow growth).

2. To carry out the above theoretical approach to determining net migration patterns under different conditions, comparable data about actual age-sex population distributions would be needed for each of the four defining years – 1990, 2000, 2010, and 2016. The current U.S. Census Bureau made a significant effort to be helpful but lacked access to some past electronic datasets. Former Census Bureau statistician Michael Levin, PhD, a frequent statistical consultant to the CNMI government, assisted us in using the limited available data to generate basic age-sex cohort numbers for each possible population component for the overall CNMI from the Censuses of 1990, 2000, and 2010, as well as the CNMI's 2016 HIES,

[4] These periods are anchored by available population from the 1990, 2000, and 2010 Census, as well as the 2016 Household Income and Expenditure Survey (HIES).

which he helped analyze.[5] He also assisted by providing data needed to develop assumptions about fertility and mortality rates needed to project change over time by natural increase, as well as proportions of NMD households eligible for DPL awards.

Unfortunately, available Census data for 1990, 2000, and 2010 did not permit *island-specific* analysis of age-sex data for each specific population group (e.g., for NMD only). And even at the CNMI-wide level, it was possible only to develop numbers for the NMD group. We could at least subtract these NMD numbers from Total Population numbers to get data for "Combined Non-NMD," but could not further break the data down into Non-NMD U.S. Residents and Foreign Non-Residents.

3. Therefore, JMK Associates used the CNMI-wide 1990 NMD age-sex data and other assumptions to "age" the NMD age-sex numbers and estimate net migration for that group. This same exercise was repeated for the NMD group for the periods from 2000 to 2010 and from 2010 to 2016. The same was done in each of the three periods for "(Combined) Non-NMD" numbers. We also looked at total population age-sex characteristics, which of course *could* be done at the island level.

4. This initial analysis with CNMI-wide NMD and (Combined) Non-NMD numbers established that:

   - As per Figure 2, CNMI's overall NMD population has consistently had an age-sex distribution very different from the (Combined) Non-NMD population pattern. The NMD pattern is closer to a classic expected distribution, with more children than adults, but has usually been characterized by a particularly steep drop-off in the late teens or early 20s, suggesting substantial out-migration in those age groups. The Combined Non-NMD Residents and Foreign Non-Residents have fewer dependents under 18 and a much greater bulge in mid-aged working years.

   - And as per Figure 3 (for reasons of space limited to three Census results), the Total Population age-sex patterns are consistently highly similar for all three islands. This suggests that when and if island-specific data may be lacking, it is reasonable to impute overall CNMI patterns to all islands. This gave credence to the idea that CNMI-wide migration characteristics could legitimately be applied in the same way to all islands.

   - However, resultant net migration characteristics in Figure 4 posed some problems for the analysis. As expected, both population groups showed overall in-migration

[5] There were necessary approximations in this process. To estimate "NMD" numbers from available Census data, Dr. Levin had to include separate data on part-Chamorros and part-Carolinians, such that a small number of people who were *both* part-Chamorro *and* part-Carolinian were likely double-counted. Also, the 2016 HIES collected race/ethnicity data via different question wording than did the Census. The CNMI's subsequent 2017 Labor Force Survey (LFS) would have provided a more "apples-to-apples" dataset in terms of NMD definitions, but it was not completed in time for this analysis. This is also an issue for subsequent Model development, as it was necessary to use the 2016 HIES data for baseline information rather than the more recent LFS. The Model, of course, could someday be re-run with baseline data from the 2017 LFS instead.

during the good times of the 1990s, out-migration during the bad times of the 2000s, and more indeterminate patterns during the 2010s – i.e., ***net migration patterns do respond to economic conditions and must be estimated***.

At the same time, the data for this study's key population group showed that ***NMD net migration has historically been less responsive than other groups to economic conditions for overall population, but rather has exhibited shifts in demographic composition.*** Even in the good economic times of the 1990s, young NMD adults were out-migrating,[6] while there was probable in-migration by older NMD adults and strong (almost improbable) levels of in-migration by NMD children. The average annual migration percentage for the overall NMD population in the 1990s was not much above zero, and the young adult out-migration effectively balanced the in-migration from other working ages.

Furthermore, none of the patterns for any of the time periods in Figure 4 resemble the age-sex characteristics for overall settled populations in Figure 2. Except during the 2000s, some age groups showed in-migration and others showed out-migration (which is why males and females were combined for Figure 4). And as noted, results for children were sometimes strange, possibly reflecting inevitable statistical ranges of error in survey samples.[7] The observed historical patterns in Figure 4 should therefore be regarded as basically true but legitimately subject to some "smoothing" to reduce oddities such as the high levels for children or the occasional staggered patterns of in- and out-migration among consecutive older age groups.

5. Therefore, the actual observed historical patterns in Figure 4 were "smoothed" or altered in generally small ways to produce final figures charted in Figure 5, which can be seen as mostly differing only slightly from those in Figure 4. The text boxes in Figure 5 summarize key changes for each group in each period.

   Specific needed numbers from this historical analysis for the subsequent forecasts were, for each population group and for each time period corresponding to the three scenarios sketched out in Section 1.2, (1) assumed ratios of migrants to natural increase, and (2) assumed age-sex distribution of in-migrants or out-migrants. Figure 5 indicates the ratios for each "smoothed" migration pattern. (The full age-sex distributions from the analysis are given in Table 7 at beginning of Chapter 2.)

[6] Note in the upper part of Figure 4 that young NMD adults dominated out-migration among adults in the other two historical periods as well, although teen-agers and adolescents were also heavily out-migrating in the much more economically mixed 2010s to date.

[7] This analysis was a limited one, and a truly complete exploration would likely have to consider factors such as relative economic conditions in Guam or other nearby islands, as well as educational/ employment opportunities in the rest of the U.S.

Figure 2: CNMI Age-Sex Percentage Pyramids, NMD and Combined Total Non-NMD – 1990, 2000, 2010, and 2016

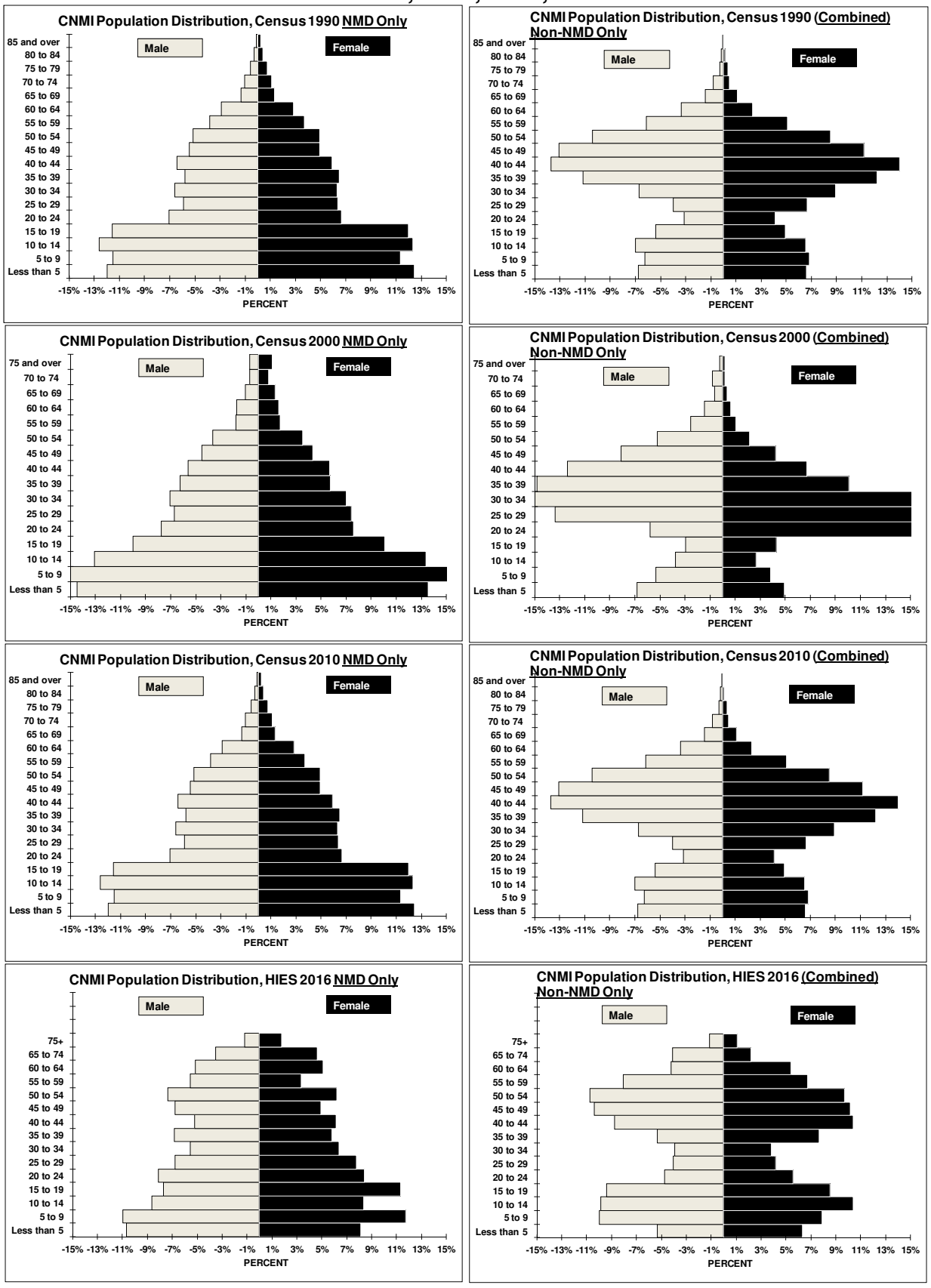


Figure 3: Island Age-Sex Percentage Pyramids, Total Population – 1990, 2000, and 2010

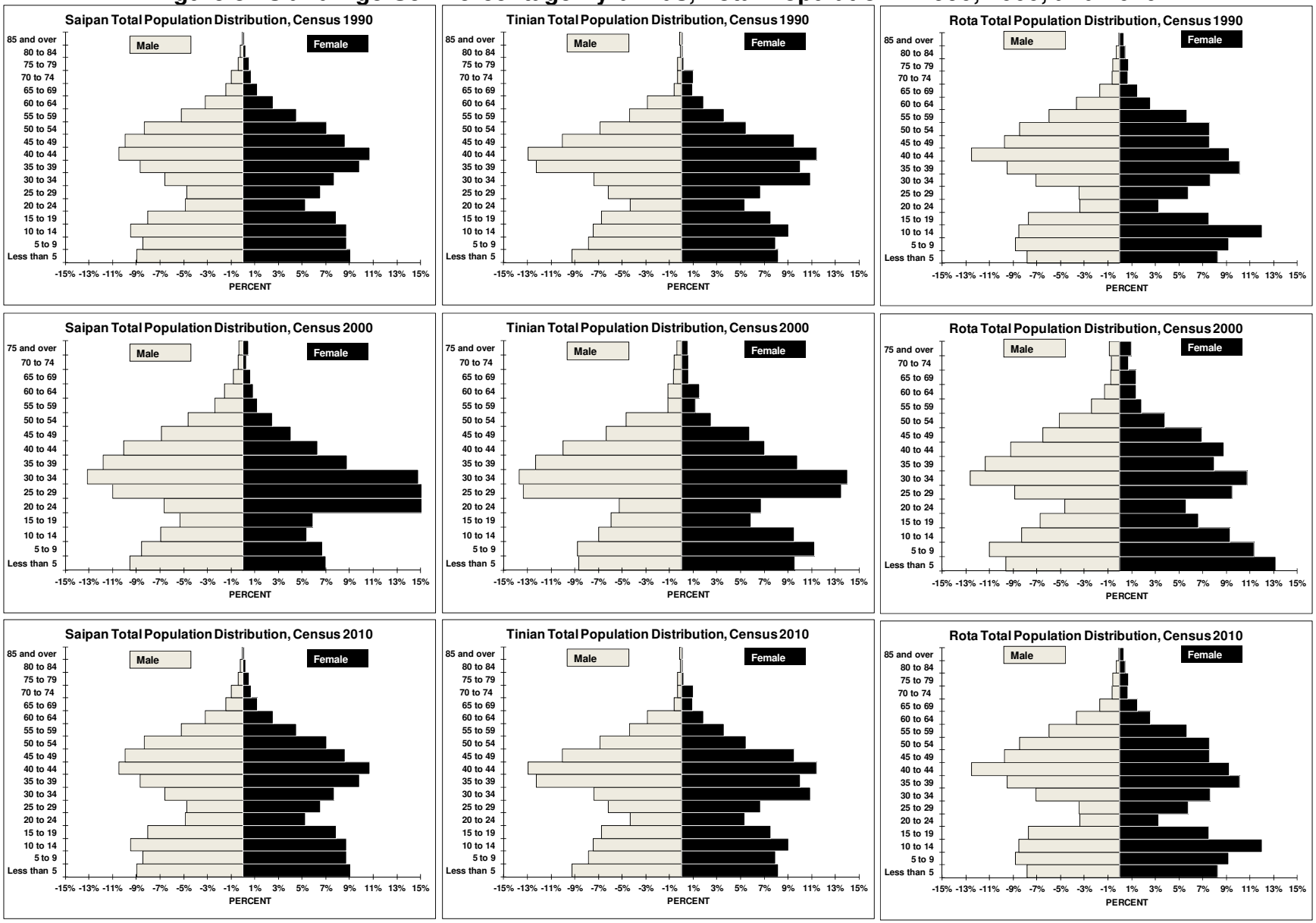
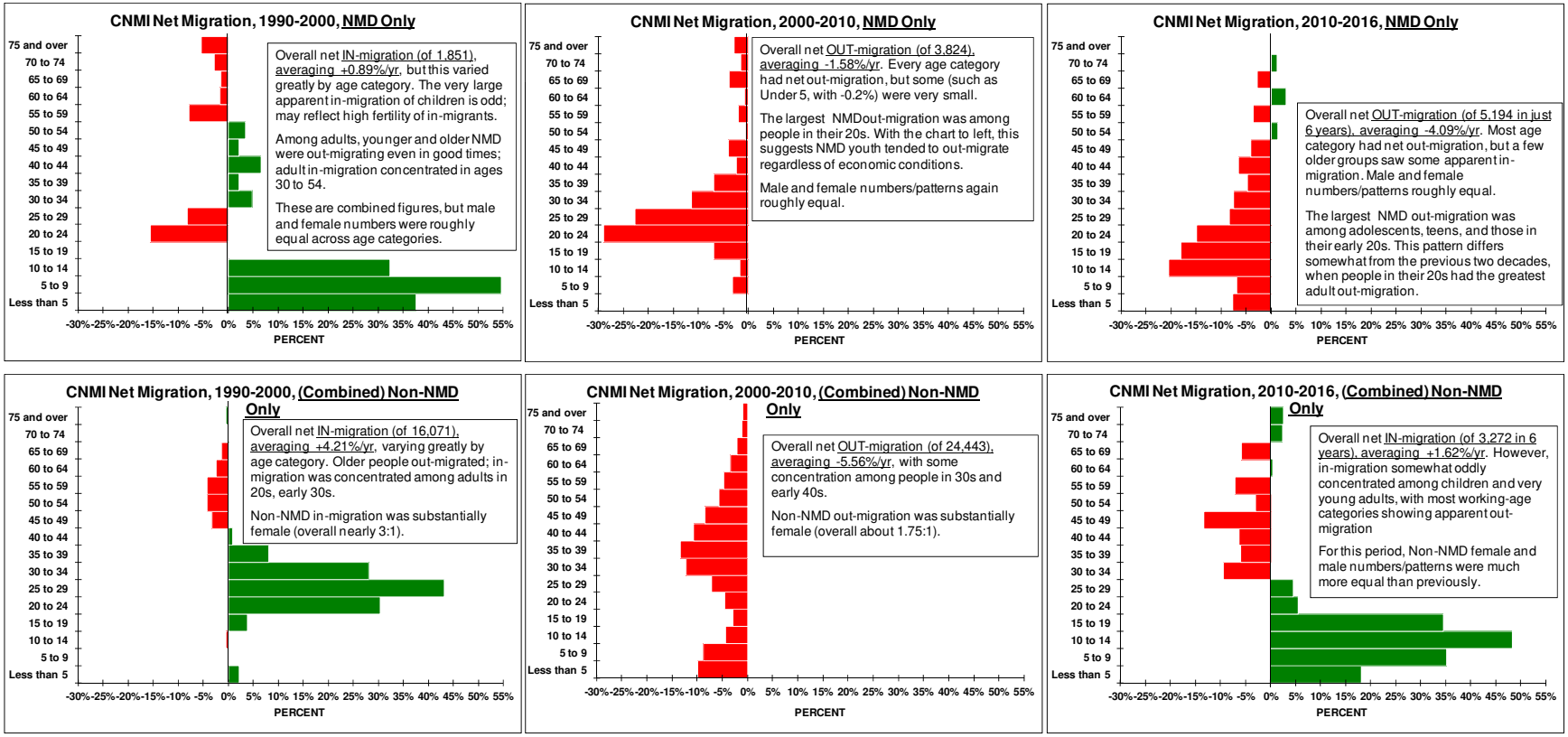
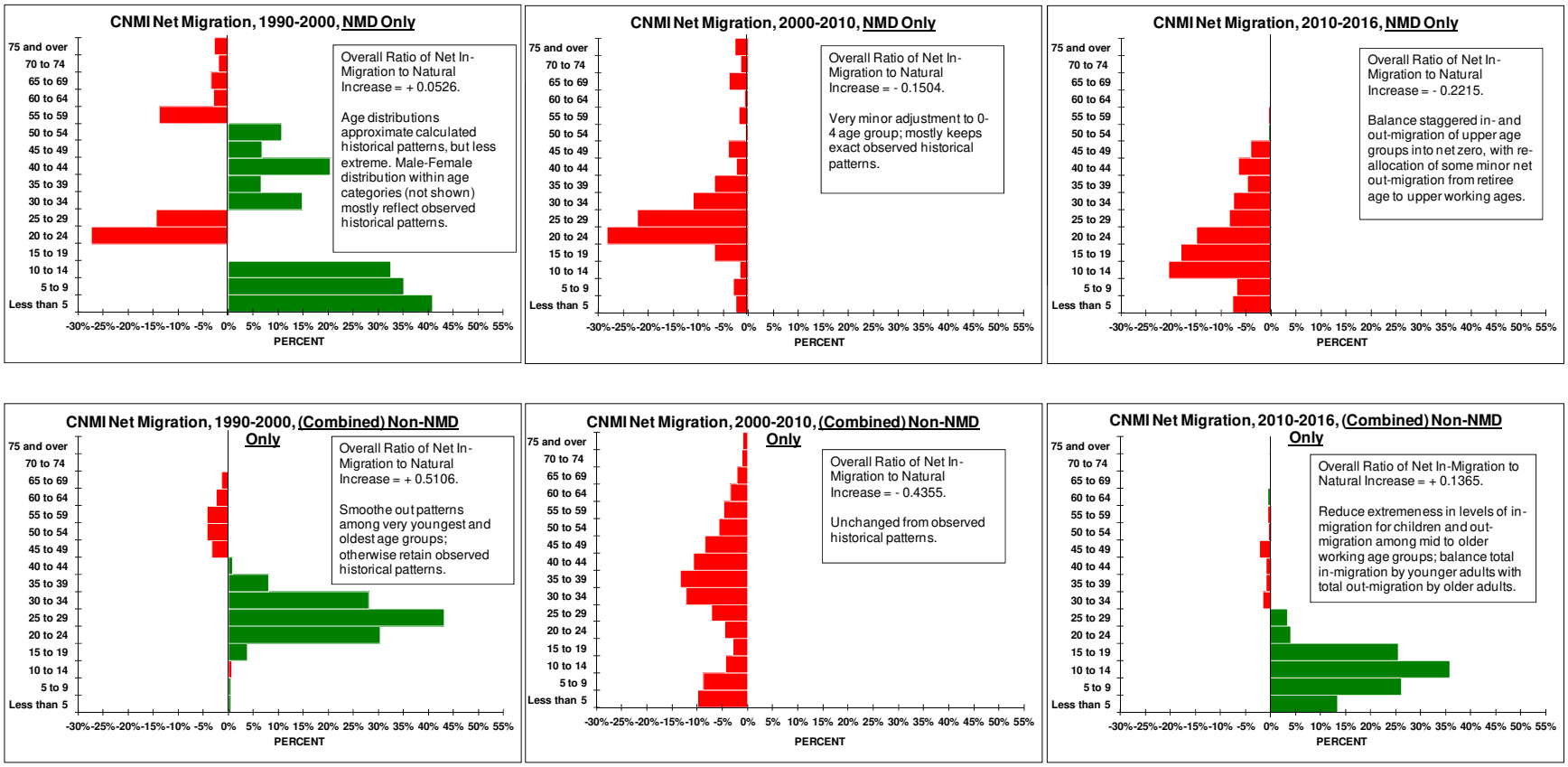


Figure 4: Net Migration Characteristics (NMD vs. Combined Non-NMD) by Age Group for Three Recent Historical Periods



(Note that scales for both NMD and Non-NMD charts are in percentage terms, and thus look similar. However, the total numbers mentioned in the text boxes show that, for both the 1990s and the 2000s, in- and out-migration was much greater for Non-NMD populations. This changed in the 2010s.)

Figure 5: Final "Smoothed" Net Migration Characteristics and Assumed Ratios of Migration to Natural Increase



In regard to estimated ratios of migrants to natural increase: For the 1990s, the model for a future "high-growth scenario," the NMD ratio is just + 0.0526.[8] This means the Model will assume very limited natural in-migration of NMD workers/ population in response to improving economic conditions – for every 100 new NMD workers produced by natural increase, only five NMD in-migrant workers will be assumed.[9] By contrast, for Non-NMD residents, the ratio of + 0.5106 means that for every 100 new workers from natural increase, there will also be 51 in-migrants in response to expanding labor demand. These assumptions are based on historical evidence, but do mean the Model will assume substantial Non-NMD (and probably Foreign) in-migration for positive growth scenarios – thus, ongoing dilution of NMD residents as a percentage of overall population.

1.6 Challenges to Forecast Model Development

Forecast models always face challenges, such as whether cause-effect assumptions built into the models are valid in real life and whether input numbers are correct. However, two other key challenges were present for this effort –

1. **Serious Data Limitations:** CNMI is a small place that went through effective Depression conditions for a decade, only recently emerging from this (at least on Saipan). Government resources are just now permitting new studies and data. Lack of a current CNMI Input-Output (I-O) Model remains a particularly serious constraint to modeling that directly links economic growth to population change.[10] As suggested in Table 2 and Figure 1, there are also uncertainties about actual "current" (2016) population, a key starting point for forecasting future population. There are also limitations in available published Census data regarding the three population components of interest. [11]

[8] The Model in some circumstances sets negative ratios to zero in cases where the focus is on in-migration in positive economic scenarios.

[9] NMD in-migrants of working age would come from limited external pools at any rate. Figure 4 and Figure 5 suggest they would generally be 30 years of age or older – likely often people who out-migrated in their 20s for education or employment opportunities elsewhere – and would be people attracted home as much by personal as employment considerations, given CNMI's lower salaries.

[10] The commercial firm IMPLAN does market an annually-updated I-O Model for the CNMI, and we obtained the most recent version (based on 2015 data) and ultimately used a few job-to-job multipliers from it. However, the IMPLAN model for our purposes is overly specified and more useful for estimating impacts of discrete particular economic changes rather than large-scale forecast modeling.

[11] Detailed population characteristics, such as race/ethnicity by population age-groups that are readily available in every other U.S. State and all Territories are not available for the CNMI. For example, American Community Survey (ACS) data released by the U.S. Census Bureau each year provide one-year and five-year estimates of all States and Territories *except* the CNMI and American Samoa. These demographic profile estimates offer greater depth of data (i.e., selected populations are asked more questions), as well as more recent figures between decennial censuses. Also, as discussed later, available published data have limitations in regard to breaking out age-sex data for the three key population components – NMD, Non-NMD Residents, and Foreign Non-Residents – in "apples-to-apples" comparable ways for the Census and for the 2016 HIES data.

2. **Current Deep Uncertainty about CNMI's Economic Future:** The biggest uncertainty as of this writing is – given limited on-island labor supply – the future availability of foreign workers to construct and operate potential new tourism-related developments (casinos, hotels, etc.), as well as fill societal support positions such as health care. However, there are also other uncertainties – e.g., continuation of tourist visas for the increasingly important Chinese market; potential impact on tourism of new military activities; or availability of capital for casino or other tourism development on Tinian and Rota.

Adding to this sense of economic uncertainty, CNMI has a significant history of "boom-bust" economic patterns over time – i.e., its economy has historically been unstable. The longest available historical data series that illustrates this is MVA data on Visitor Arrivals, which show near-exponential growth till 1997, then a general sharp downward trend to 2011, followed by upturn. (See Figure 6, following page.) Real Gross Domestic Product (GDP) is a better overall economic indicator, though the U.S. Bureau of Economic Analysis has published this only for years from 2002. However, it shows a similar decline to 2011, followed by recovery (Figure 7, following page).

1.6.1 CNMI-Wide Economic Uncertainties

This section will discuss uncertainties with potential to impact the future of labor demand and population growth in the CNMI. The following is likely not a comprehensive inventory of all future possible alternatives, but three issues could particularly sway future CNMI development in the CNMI: (1) an uncertain labor pool; (2) uncertainties about likely growth despite infrastructure limitations; and (3) a sustained tourism market.

Uncertain Labor Pool: The CNMI hospitality industry (including accommodation, construction workers, and food services) is particularly dependent on foreign labor, with more than 80 percent of workers from outside CNMI or the United States.[12] Until 2008, CNMI exercised sole authority over the distribution of tourist visas and foreign labor permits. However, in the midst of the last economic downturn, the U.S. Congress approved the Consolidated Natural Resources Act of 2008 ("CNRA") which initiated a transition to U.S. immigration laws beginning in November 28, 2009.[13] To ease the economic burden of a more restrictive immigration policy, two new categories of visas were created solely for CNMI:

- The CW visa program allowed companies to utilize transitional foreign workers for construction and hotel operation labor. CW-1 permits were issued to foreign workers, while CW-2 permits were issues to the spouses and dependents of those workers.

- Additionally, E2-C permits were created for foreign "investors" in the CNMI (though these permits are used far less often than the CW permits).

[12] U.S. Government Accountability Office (GAO). May 2017). "Implementation of Federal Minimum Wage and Immigration Laws". Retrieved Nov. 2017. *http://www.gao.gov/assets/690/684778.pdf*

[13] Robert J. Misulich. "A Lesser-Known Immigration Crisis : Federal Immigration Law in the Commonwealth of the Northern Mariana Islands" (PDF). Digital.law.washington.edu.

Figure 6: Total Visitor Arrivals CNMI (FY) 1978-2017

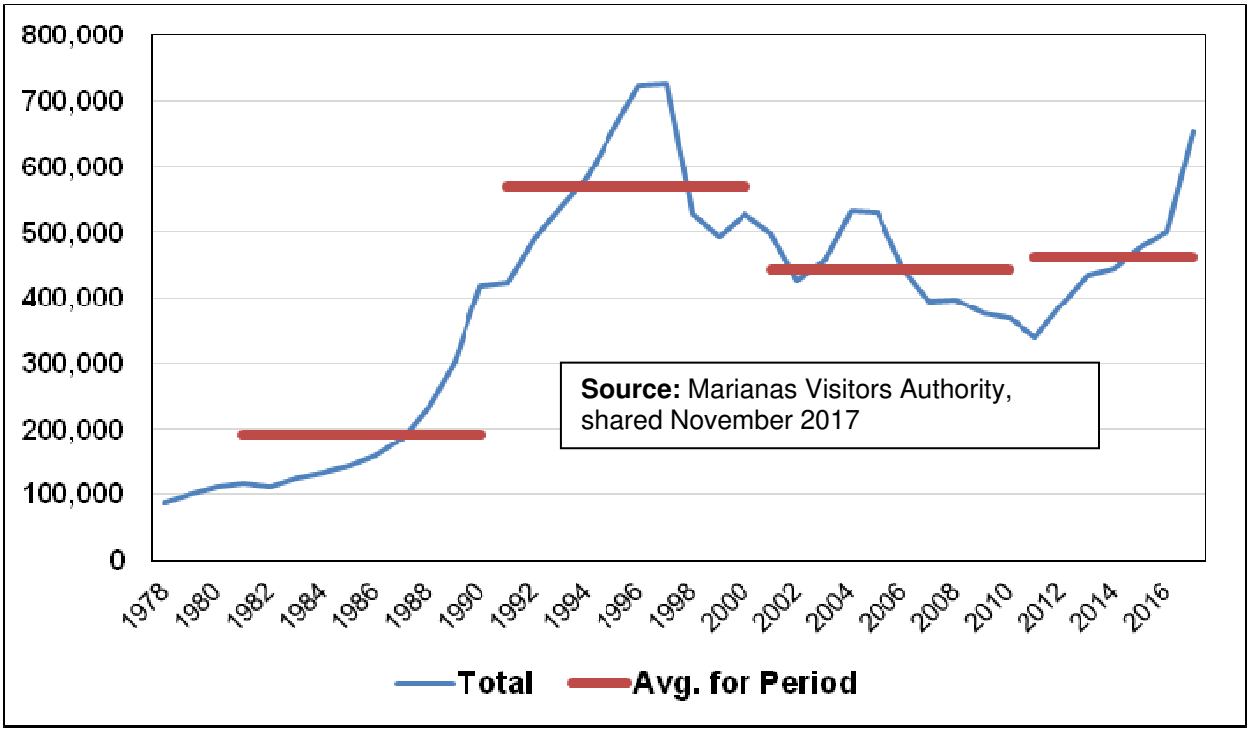
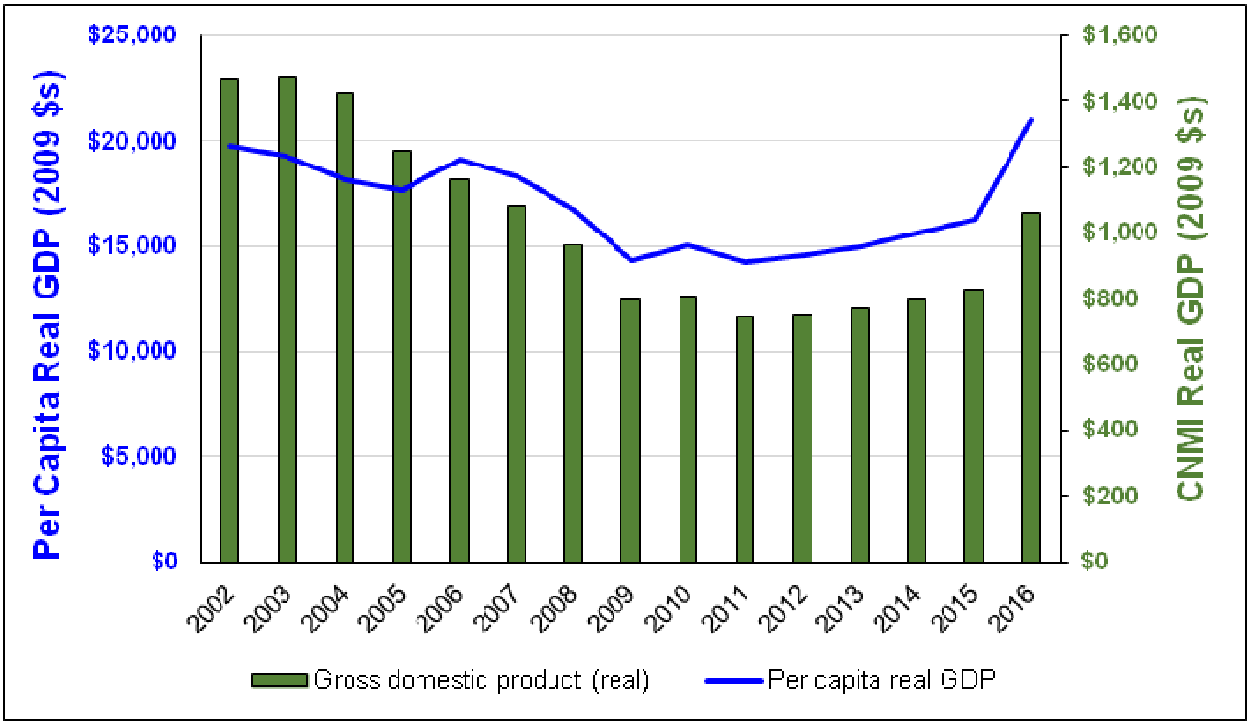


Figure 7: CNMI Real Gross Domestic Product 2002-2016



Source: U.S. Department of Commerce. Bureau of Economic Analysis. Release Date: October 15, 2017. Retrieved November 2017. https://www.bea.gov/national/gdp_territory.htm
Note: Estimates of population for 2013-2016 reflect the incorporation of updated information from the U.S. Census Bureau's International Data Base.

These measures were always intended to be temporary, to allow the CNMI to reduce its dependence on foreign labor while it developed sustainable sources of U.S. labor. Both the CW and E2-C permits were intended to be reduced over a period of five years (2009-2014), and then another five-year extension period (2014-2019) when the program would eventually be phased-out, and foreign workers routed into the nationwide foreign labor permit program (which is capped at 65,000 permits for all of the U.S. including CNMI). A May 2017 report by the U.S. Government Accountability Office estimated that the removal of all CW-1 workers would cause the CNMI GDP to decline by 26 to 62 percent from 2015 levels.[14] Despite this assessment, the deadline for the Program's phasing out remains December 31, 2019, though the battle is ongoing in Congress.

This is perhaps the most obvious and critical uncertainty facing all the CNMI islands. It is generally believed among the public- and private-sector officials interviewed for this effort that CNMI's economy will crash without CW-1 workers to build and then help operate new hotels and casinos, as well as crucial support jobs in fields like health care.

Soaring Growth vs. Infrastructure Limitations: A significant number of construction projects, including resort-hotel and casino developments, have been proposed in recent years throughout the CNMI. If all proposals actually are built, it will add a total of more than 6,600 hotel units to the CNMI inventory and require a labor pool of more than 8,000 for Operations as well as more than 6,000 for construction (see following Table 3). According to the Hotel Association of the Mariana Islands (HANMI), the total visitor unit count in the CNMI as of January 2016 was 3,444.[15] This sort of growth implies a 92% increase in total rooms over just a few years. It is by no means certain that all the new units, if constructed, will find a market to fill them with high occupancy.

Growth occurring at such high rates also raises questions in regard to the sustainability of the CNMI infrastructure. The recently (2017) MVA-commissioned Horwath Report noted that, while the CNMI overall market has seemingly been booming, "the current situation where relatively quick returns are generated without consideration to longer-term impacts is not sustainable."[16] Furthermore, the report highlights that "Overall, relative to the CNMI's resources and population, this target growth level is unrealistic", and that growth beyond a 750,000 visitor arrivals mark (or at levels comparable 1996-1997 peak levels see Figure 6) could only be made possible "with considerable expansion of the existing infrastructure by scales and timelines that correspond to arrival growth (p.7)." Some of the expansions suggested included addressing shortening arrival wait times at Saipan Airport, as well as renovation of existing properties (suggesting that after the initial boom subsided, the low quality of accommodations will negatively impact CNMI's competitiveness as a tourist destination).

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[14] U.S. Government Accountability Office (GAO). May 2017). "Implementation of Federal Minimum Wage and Immigration Laws". Retrieved Nov. 2017. http://www.gao.gov/assets/690/684778.pdf

[15] As summarized in MVA reports. Counts for HANMI members only. Excludes vacation rental accommodations, which have not been counted but are estimated by some interviewees for this study to account for up to 35% of total existing inventory. There is also uncertainty about how long some current lodging facilities will remain open due to upcoming lease expirations, as mentioned in subsequent pages.

[16] Horwath HTL. *Ibid.* P. 3

Table 3: Current and Pending CNMI Projects

Island	# Rooms	Employees Needed	Construction Needed	Name of Project	BECQ Status
Saipan	373	540	1,500	Imperial Pacific Resort Hotel	Under Construction
Saipan	51	20	100	Royal View Hotel	Application under review
Saipan	26	8	29	Fantastic Garden	Application under review
Saipan	1,184	560	700	Saipan Garden Resort	Application under review
Saipan	50	20	56	Saipan Vegas	Under Construction
Saipan	312	148	352	Honest Profit Saipan Resort Hotel	Under Construction
Saipan	60	38	49	Surfrider Resort Spa & Beach Club	Under Construction
Saipan	226	96	106	Sugar King Hotel & Dormitories	Under Construction
Saipan	100	70	40	Himawari Commercial Operations	Under Construction
Saipan	536	175	60	Saipan Globe Hotel	Not started
Saipan	100	21	113	Beach Road Ocean View	Not started
Saipan	144	148	250	Ocean Vista Resort	Not started
SUB-TOTAL	***3,162***	***1,844***	***3,355***		
Tinian	300	859	375	Bridge Investment Titanic	Application under review
Tinian	414	1,300	518	Imperial Dynasty	N/A
Tinian	2,500	4,000	2,000	Plumeria Resort	Application under review
SUB-TOTAL	***3,214***	***6,159***	***2,893***		
Rota	225	335	281	Luxury Hotel/ Ecotourism	N/A
SUB-TOTAL	***225***	***335***	***400***		
TOTAL	***6,601***	***8,338***	***6,648***		

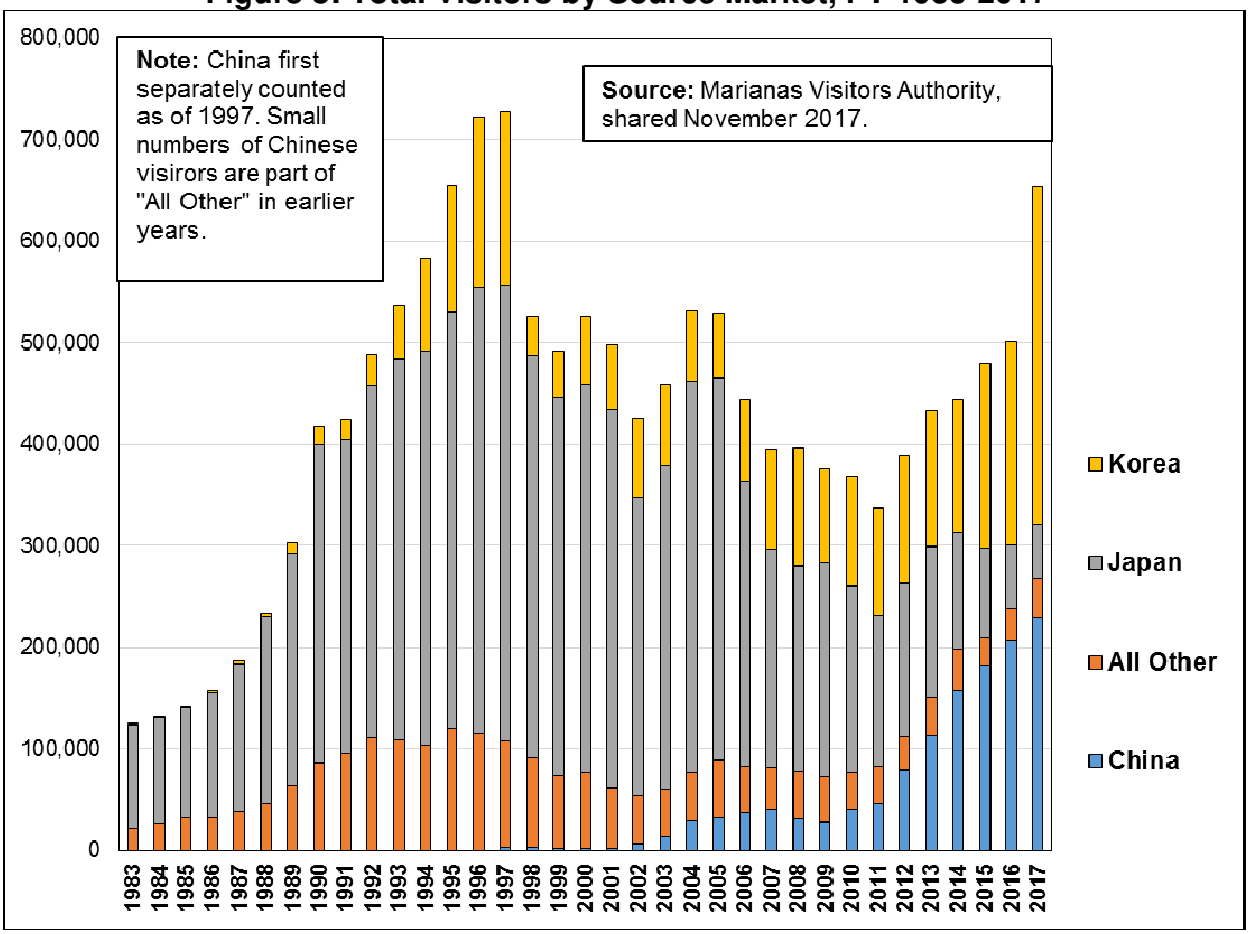
Source: Adapted from data received from the CNMI Bureau of Environmental and Coastal Quality (BECQ). Major Siting Development Chart. 2015-2017. Received in October 2017.

Note: The Tinian Dynasty is currently closed, and no investor has immediate plans to re-open it, but we include it here as a possible future project, should it be purchased. Numbers reflect the number of rooms and employees the Dynasty when it was still in operation. Additionally, while there currently is no official application under review at the BECQ, we have added the possibility of small-scale luxury hotels in Rota, as mentioned to us in interviews with various officials, operators, and investors.

Prospects of a Sustained Tourism Market: Recent increases in visitor arrivals have been marked by a shift from a majority of visitors coming from Japan to a predominant market share of visitors from China and South Korea. From fiscal years 2011 through 2017, the number of visitors from Japan dropped by 65%. Meanwhile, the number of Chinese visitors rose by 123% and the number of South Korean visitors rose by 213% (Figure 8). However, the prospect of a continually growing Chinese tourism market is also dependent on the extension of the U.S. Department of Homeland Security (DHS)'s discretionary parole authority, which allows Chinese (and Russian) visitors to enter the U.S. as temporary visitors for up to 45 days on a case-by-case basis in the CNMI since 2009. The parole program is scheduled to sunset in 2019 (at the same time as the CW and E2-C permits). As of this writing, no Congressional decision has been made in regards to its extension of beyond that.

There are fundamental questions as to how long the recent growth spurts in tourism can continue .Growth was still very strong at the beginning of 2017 (arrivals were up 47% in March 2017 compared to March 2016) but was slowing greatly toward the end of the year (up just 2% by November 2017).

Figure 8: Total Visitors by Source Market, FY 1983-2017



1.6.2 Saipan

While Saipan legalized casino gambling and issued a license to the Macau-based Imperial Pacific International Holdings Inc. (IPI) for a large casino and hotel soon thereafter (in 2014), only the casino had opened as of 2017. The adjacent hotel (for which construction was expected to finish by August 2018), has now been pushed back to August 13, 2023, due to a complicated set of labor issues related in part to current unavailability of CW-1 workers following actions by the U.S. Immigration and Customs Enforcement over safety and illegal hires. IPI proposes a large "Phase 2" to its investment – including an additional casino, hotels, shopping, and other attractions, probably in the Marpi area – but like many other substantial proposals, this is not a certainty at the present time. There are additional questions about whether China will continue to permit external investments in gaming and hotels (as part of a general tightening on foreign investment),[17] likelihood of U.S. federal investigations into future CNMI casinos following the closure of the Tinian Dynasty, etc.

[17] CNBC, Aug. 21, 2017. "No sex, no gambling: China tightens rules on foreign investment." https://www.cnbc.com/2017/08/21/no-sex-no-gambling-china-tightens-rules-on-foreign-investment.html

There are currently four hotels or condo-tels under construction on Saipan, and five additional ones with permits under review at the Bureau of Environmental and Coastal Quality (BECQ), totaling a future inventory (if all constructed) of over 2,200 additional rooms on the island. These new rooms would require an estimated 2,000 employees to operate. Again, however, there is no certainty that all "Under Review" projects will actually materialize – nor, as is always the case, is there any assurance that there is sufficient market demand for new hotels, that an over-supply is not being created.

The nature of tourism is changing in Saipan. Apartment-based vacation rentals (not counted in MVA lodging inventories) have been estimated as 35% of total inventory by some visitor industry sources in confidential interviews for this project. And some new projects under development are more in the nature of limited-service "condo-tels" than traditional full-service hotels.

Finally, both interviews and also recent news reports suggest strong industry concern over various DPL hotel leases soon to expire. (In general, off-island investors have long expressed concern over the relative brevity of 40-year leases permitted to non-NMD lessees.) Without certainty over whether they can renegotiate existing leases or must compete with other bidders, owners of major properties are hesitating to invest in repairs and renovations, contributing to possible perceptions of deteriorating hotel inventory in Saipan.

1.6.3 Tinian

The Tinian Dynasty Hotel & Casino opened in 1998. It was the only casino in CNMI for many years, but closed in 2015 after U.S. federal law enforcement fined its owners $75 million for failing to follow anti-money-laundering procedures. The property remains closed as of January 2018. According to data provided by BECQ, most of CNMI's future planned labor demand is for development on the island of Tinian, where two other casino resorts have been proposed, with an estimated labor demand of 6,359 workers for operations – more than twice the island's population in 2016. The likelihood of any of these project actually materializing is uncertain at this time.

- Alter City Group Holdings Ltd. plans a casino complex accompanied by a large resort.

- Bridge Investment Group proposes a Titanic-themed casino on the coast.

- The Dynasty could be renovated if sold (but there is a lien on the property to pay the $75 million fine, which is reportedly a major obstacle to finding investors, though there is also the possibility the amount could be negotiated down).

As detailed further in the following Section 1.7, there are also critical questions about the compatibility of tourism with proposed military activities, and these also affect the likelihood of proposed developments becoming a reality.

1.6.4 Rota

Despite the island's beauty and environmental appeal, tourism has a spotty history on Rota and it is unclear what can really succeed there. Although a Gaming Commission exists on the island, there are no current likely prospects for casino development. (One proposal resulted in a lawsuit for the Commission, recently settled.) Interviews with public and private officials for this study suggest that small upscale eco-tourist lodges are now more likely to be developed on the island.

1.6.5 Northern Islands

Modeling the future population growth the Northern Islands is essentially not possible, as there is high uncertainty about future (potentially conflicting) proposals currently being proposed for the area. First, the U.S. military is currently preparing an Overseas Environmental Impact Statement (OEIS) to assess the potential effects new live-fire training on Pagan. Some previous residents have opposed this project, hoping to promote small tourism-related economic development in the form of eco-tourism on the island. Other forms of economic development that have been proposed include a proposal to mine for pozzolan. The socioeconomic study conducted for the military OEIS mentions a 1978 Master Plan for Pagan drafted by the Office of Transition Studies and Planning which noted that exploitation of basalt deposits could be an economic development possibility for the island. However, the socioeconomic study concluded that "Analysis of market conditions and mining operation feasibility indicates that a pozzolan mining operation on Pagan would not be expected to reach profitability or provide an investor with an acceptable rate of return." [18]

1.7 Subsequent Approach to Modeling and Scenario Development

While it was initially determined there would be three very different economic scenarios for each island – High Growth, Medium (or Status Quo), and Poor/Negative – the next step of Model development required more detailed specifications. The key drivers for CNMI change that would need to be addressed in each scenario would include:

1. Traditional ***tourism*** growth – typically measured in the CNMI by visitor arrivals;
2. ***Arguably, casino*** activities as a separate factor, because casino revenues do not interact with the rest of the economy as normal visitor expenditures do;
3. Potential ***military*** training activities, which will provide some jobs on Tinian but some fear could suppress tourism on Tinian and Saipan due to air conflicts, image, etc.;
4. ***Construction*** – although it is sometimes difficult to link this coherently with the more permanent ongoing tourism or military activities above.

[18] U.S. Department of the Navy. Preliminary Draft (Version 3) *Socioeconomic Impact Assessment Study in Support if the Commonwealth of the Northern Mariana Islands Joint Military Training Environmental Impact Statement/Overseas Environmental Impact Statement.* 2015. P. 5. Available at: http://www.cnmijointmilitarytrainingeis.com/documents

1.7.1 Conceptual Decisions

This sub-section describes the *general* approaches decided upon to address some of the key topics and uncertainties previously described, and the following sub-section summarizes the overall scenarios decided upon.

General Model Approach to Tourism

Many discussions about potential CNMI (especially Saipan and Tinian) tourism growth center on a current spate of actual or proposed new resort units, varying from hotels to condo-hotels to the uncertain number of private vacation rentals directly marketed over the internet. One such list was presented previously in Table 3.

Our preference was not to rely on units as the main tourism variable if possible, because the mere existence of new hotels or other lodging structures does not guarantee there is enough of a market to fill them. Outside Hollywood, "Build it and they will come" is rarely a viable business plan, and the CNMI has several vacant deteriorating structures that were once struggling hotels.

The ideal variable would be visitor expenditures, because it is money that circulates in the economy and creates demand for other economic activity and for related "ripple effect" new jobs. If the CNMI simply maintained its present visitor counts, but could somehow increase visitor spending by 50% more per day in the local economy, that would produce economic effects roughly equivalent to boosting the visitor count by 50% (if there were no spending increase per visitor).

However, available visitor expenditure data for the CNMI are spotty over time, and a key recent set of possible forecasts (i.e., the Horwath Report for MVA) instead uses visitor arrivals as the critical variable. The Horwath Report's visitor arrival projections are for the CNMI in general, but arrivals now overwhelmingly stay in Saipan, and it is Saipan's infrastructure that is presumably most at stake when Horwath concludes that arrival levels above 750,000 annually may not be "sustainable." Therefore, the first decision in Model scenario design was that Saipan's tourism inputs would be based on different presumed levels of visitor arrivals for each scenario.

However, the Horwath Report is CNMI-wide (with an implicit primary focus on Saipan) and does not provide any range of estimates for Tinian and Rota. For those two small islands, it seems necessary to assume that the level of development being proposed would not greatly outstrip market demand for the relatively short timeframe of this model, and to define scenarios based on how many units exist.

We were thus driven to a hybrid approach in which (a) the Saipan tourism variable is defined by varying assumptions from the Horvath Report about visitor arrivals (which are assumed to apply primarily to Saipan; (b) Tinian and Rota arrivals are separately estimated by assumptions about number of visitor units; and (c) scenarios in which

750,000 arrivals are seen as a "cap" are applied only to Saipan (as that is presumably where infrastructure would be strained), and any new Tinian/Rota tourism growth could still take place. In practice, that would mean that the middling "Scenario B" would be more of a "Status Quo" scenario for Saipan but a slow to "Medium Growth" scenario for Tinian and Rota.

General Model Approach to Casinos

Casinos are currently a major contributor to new lodging development in the CNMI, but their economic behavior is distinctive. Large gambling losses are now handled via payments in China, not in the CNMI. There are no current data on whether casino-specific "high-roller" tourists spend any more lavishly than other visitors in the general Saipan economy outside the casino walls. Casino fees are enhancing CNMI government revenues and helping to pay unfunded liabilities relating to government employee pensions and health care, but it is unclear at this point how many current governmental jobs may be added over time as a result of such revenues.

For these reasons, and because the ultimate focus of this study is on labor demand and associated population dynamics, the relevant range of information is for the variable of casino jobs and how to separate these from estimates of combined casino-hotel jobs.

Saipan: According to recent news reports,[19] casino jobs on Saipan are currently at 1,677, declining from 1,848 in May 2017. Assumptions for the model have considered 1,600 casino jobs at the Imperial Pacific.

Tinian: For the purposes of estimating casino jobs created on Tinian, historical employment counts for the Tinian Dynasty were used. In a recent article,[20] the *Saipan Tribune* reported that 1,300 workers were needed for the operations of the Dynasty Casino/hotel when it was still open. Additionally, the Bridge Investment Group suggests the construction of the "Titanic" will produce 859 jobs.[21] For the purposes of modeling estimated casino-related jobs, we made a general assumption that some portion of operational jobs would be for hotel workers (30%) and another for casino workers (70%).

Rota: While casinos have been proposed for Rota, interviews with current public officials and some private developers suggested a current preference for more of an eco-tourism approach without casinos. Therefore, no casino jobs are assumed for any scenario. (However, the Model has the capacity to add them if needed in any future studies.)

[19] Marianas Variety. "Casino construction workers leaving on Dec. 17". Nov. 30, 2017. Accessed Jan. 11, 2018. http://www.mvariety.com/cnmi/cnmi-news/local/100489-casino-construction-workers-leaving-on-dec-17

[20] Saipan Tribune. "Tinian leaders rally behind CW program extension". Dec. 7, 2017. Accessed Jan. 11, 2018. https://www.saipantribune.com/index.php/tinian-leaders-rally-behind-cw-program-extension/

[21] See GAO. Implementation of Federal Minimum Wage and Immigration Laws. May 2017. Page 82.

General Model Approach to Tinian Military Training and Impact on Tourism

Although there is prospective military live-fire training activity in the Northern Islands, it is the activity at Tinian that would (a) provide a modest amount of direct employment there; and (b) according to some in the CNMI, suppress tourism on both Tinian and Saipan.

Tinian Military Options: Although the federal environmental study process continues for the development of military facilities on Tinian, it now appears likely this will occur and so is assumed for all three Tinian scenarios. According to the 2015 Socioeconomic Impact Assessment Study (SIAS) in support of the Joint Military Training Environmental Impact Statement,[22] a permanent base camp located on Tinian for 20 weeks per year would create 95 jobs there, with an average annual construction jobcount of 571 during the seven years prior to completion. Of the permanent jobs, 19 would be for military personnel and/or government employees with specialized training and experience, and the rest (76) are expected to be filled by existing Tinian residents. However, our analysis – while it accepts the labor demand figures – assumes local population will fill the jobs only if labor supply is available based on unemployment rates and natural increase *in conjunction with whatever else is also assumed about Tinian casino-hotel development*. Thus, "who gets the jobs" in this Model forecasting study depends on overall scenario specifications.

A second proposed military activity is development of a "divert airfield" (i.e., alternative military airfield if facilities at Guam are unavailable due to military or natural emergencies). The divert airfield would have no or minimal associated permanent jobs but would involve a maximum construction jobcount of 150 during the three years prior to completion, with 50% of these jobs for Tinian residents.[23] (Again, though, our Model assigns jobs to residents or in-migrants based on estimated on-island labor supply vs. cumulative demand.) Given completion of military environmental studies and a December 2016 Record of Decision, it appears likely but not completely certain the divert airfield will be built on Tinian. Therefore, these construction jobs are omitted in the pessimistic Scenario C but included for Scenarios A and B.

The Model assumes both military training facilities and (for the first two scenarios) the divert airfield would be operational by 2028. This is likely an optimistic schedule – the joint military training facilities are actually now scheduled for opening in 2030 – but we

[22] U.S. Department of the Navy. Preliminary Draft (Version 3) *Socioeconomic Impact Assessment Study in Support if the Commonwealth of the Northern Mariana Islands Joint Military Training Environmental Impact Statement/Overseas Environmental Impact Statement.* 2015. Available at: http://www.cnmijointmilitarytrainingeis.com/documents

[23] U.S. Air Force. *Final Environmental Impact Statement for Divert Activities and Exercises, Commonwealth of the Northern Mariana Islands.* September 2016. Available at http://pacafdivertmarianaseis.com/docs.html. The study also indicates up to 265 military personnel would come to Tinian for military exercises for up to eight weeks per year, though these would not necessarily be consecutive weeks. This intermittent military population was not included in the Model, nor did we include intermittent training for U.S. Marines and other military personnel associated with the "Joint Military Training" facility.

wanted to be conservative in assessing economic change and associated population impacts for long-term DPL training.

Impact on Tourism: In written comments to the 2015 SIAS, the MVA argued that proposed military activities are deeply incompatible with tourism for both Tinian and nearby Saipan, as well as the Northern Island of Pagan. For this study, we asked MVA about its current position on military-tourism compatibility. Deputy Director Judy Torres provided a lengthy and nuanced response,[24] which we attempt to summarize here:

- MVA now supports a Tinian divert airfield, consistent with recent U.S. Dept. of Defense (DoD) promises "to improve port and airport facilities for civilian and tourism uses" along with military uses. However, MVA still anticipates negative Tinian tourism impacts due to military jet aircraft noise and "intermittent unscheduled loss of primary tourism sites in the DoD leased northern two thirds of the island."

- "While tourism has a chance of co-existing with a divert airfield on Tinian, it has no chance of survival with a full-on live fire training in regime in place" due to the above factors. Current uncertainty about military activities is discouraging casino-hotel development, Ms. Torres wrote. (MVA further maintains its previous position that any military live-fire training use of Pagan would be incompatible with eco-tourism envisioned for that island.)

- Tourism in Saipan and the CNMI generally would also be negatively affected due to (a) interference with tourist-bearing commercial flights encountering sometimes unscheduled conflicts, as normal flight approaches to the Saipan airport go over Tinian; (b) tour agents becoming "reticent" to book CNMI tours if there is indeed a history of flight delays, departing tourists stranded on Saipan, or visitors prevented from reaching the islands; and (c) the possibility that CNMI's Brand image would be associated with negative environmental impacts and "on-going armed military presence and our skies viewed as subject to periodic closure and even the threat of attack …"

Such prospective conflict between two primary economic sectors is a serious consideration, subject to debate and counter-arguments[25] likely to play out as final studies are prepared and decisions made about Tinian military activities. JMK Associates does not feel qualified to determine whether and to what extent these concerns about military impacts on tourism are justified. We decided not to attempt any scenarios in which military activities had various shadings of impact on tourism on Tinian or Saipan. Rather, subsequent specifications for Scenarios A and B implicitly assume high or moderate tourism military co-existence. Scenario C – while more contingent on presumed loss of CW-1 visa workers – is also consistent with a future in

[24] Personal e-mail communication, Dec. 7, 2017.
[25] For example, Hawai'i has maintained a successful visitor industry – and has attracted increased numbers of Asian visitors in recent years – despite a heavy military presence and a history of attack (Pearl Harbor).

which live-fire training on Tinian is at least correlated with virtually no tourism development on that island and steep downturns on Saipan.

General Model Approach to Construction

Major construction projects can add significantly – although temporarily – to total island populations, especially on a small island such as Tinian. However, construction workers and dependents rarely remain long enough to add to the population through births, and the timing of their presence is particularly uncertain. Therefore:

- Scenarios somewhat arbitrarily specify estimated construction-related labor demand and associated population with dependents that might reasonably occur in the final year of a projection period preceding the time period in which a major project is assumed to open. (See shortly following Section 1.8 for specification of the time periods used in the Model.) For example, if a scenario assumes a new casino-hotel opening on Tinian in the 2026-28 time period, point-in-time construction jobcounts might be assigned to 2025, the final year of the preceding 2021-25 time period covered by the Model. (The Model does not attempt to account for any and all construction activity, just major "spikes" above normal due to such large projects.)

- Construction-related population is omitted from the principal population estimates, which are assumed to flow from "permanent" or operational jobs. (For this reason, construction-related population is also not added to the population that is "aged" to estimate natural increase in the Model.) However, the results in Chapter 3 do show the additional total population from presumed construction as a sort of footnote to the principal population figures.

1.7.2 Final Scenario Choices

Chapter 2 begins with more specific details for each scenario, but the key parameters decided upon were as follows:

A. Scenario A ("High Growth") –

- ***Saipan:*** Visitor arrivals unconstrained by either labor or infrastructure capacity; based on averaged projections from Horwath report, they grow to 1.04 million by 2028; new casino opens in 2026-28 period.

- ***Tinian:*** Two casino-hotels open or re-open, one by 2020 and other by 2028; all planned military activities (joint military training and divert airfield) constructed by 2028. (Implicit: Military and tourism can co-exist.)

- ***Rota:*** Three small but very upscale 75-unit hotels are developed – one by 2020, another by 2025, third by 2028.

B. Scenario B ("Medium Growth/Status Quo") –

- ***Saipan:*** Infrastructure or other constraints result in visitor arrivals leveling off at Horwath's "sustainable" level of 750,000; no second casino.

- ***Tinian:*** Just one casino-hotel, and not till 2028; all planned military activities proceed.

- ***Rota:*** One small luxury hotel by 2025.

C. Scenario C ("Poor/Negative Growth" and general economic contraction due to phasing out of all CW-1 workers by 2021) –

- ***Saipan:*** Decimation of visitor industry labor supply causes visitor arrivals to plummet by nearly 300,000 by 2020; then gradual partial recovery but no second casino.

- ***Tinian:*** Military training developed but no divert airfield; no large casino-hotels but perhaps one small budget hotel by 2028 as part of "adaptive response" to new economic conditions.

- ***Rota:*** Similarly, no luxury hotels but one small budget hotel by 2028.

1.8 Final Model Design

The Model created for this study merged the two elements discussed in the immediately preceding sections – (1) age-sex population forecasts for three population components; and (2) economic scenarios. This section describes the final Model design and logic, as well as noting strengths and weaknesses.

The ***general framework*** of the Model involves population groups, island, and time periods:

A. While some CNMI-wide information is used, each Model is at the island level and attempts to separately track population and labor supply levels for three components of each island's population: NMD, Non-NMD Residents (U.S. Citizens and green-card holders), and Foreign Non-Residents (roughly equivalent to CW-1 or other temporary work visa holders and dependents).

B. Five time periods are utilized, extending beyond the 2028 target date to provide additional perspective:

- "Present" (2016) to 2020;
- 2021-2025

- 2026-**2028** (DPL Target Year for Planning)
- 2029-2030
- 2031-2035

The ***fundamental conceptual logic of the Model process*** is as follows. Each step is described in terms of the first time period – and, implicitly, for a particular island and population group – but the steps are identical for other time periods, for other islands, and (mostly) for other population groups.

1. Beginning with the known age-sex population distribution for 2016, fertility and mortality assumptions are used to "age" the existing population one year at a time to the end of the period. This is population "natural increase."

2. Historical data and other assumptions about labor force participation rates and unemployment rates are used to estimate available on-island **labor supply** from natural increase (assuming no net in-migration).

3. The **labor demand** analysis begins with a short chain of assumptions and calculations about "Direct" jobs and ultimately estimates "Total" jobs in the ***Tourism*** sector. ("Direct" jobs are those created by direct visitor expenditures – not only at hotels or other lodging, but also at retail and restaurant establishments, activities and attractions, transportation, etc. "Indirect" jobs are those created by tourism businesses buying from other businesses, and "Induced" jobs are those created by employees spending money or paying taxes in the economy. "Total" Tourism jobs are the sum of Direct, Indirect, and Induced jobs.)

    - On Saipan, presumed new Visitor Arrivals by the end of the time period – along with assumptions about party size, average nights on island, and occupancy levels – generate assumptions about change in the number of lodging units actually demanded. (On Saipan, the Model thus avoids consideration of possible over-building.) Further assumptions are made about the average number of workers per unit, and the ratio of all Direct jobs to lodging jobs alone.

    - On Tinian and Rota, we necessarily begin with assumptions about new units. Visitor Arrivals are estimated from a backward application of assumptions noted above for Saipan, but this is purely for informational value, to generate comparable information for all three islands. The real analysis follows a logic similar to that for Saipan from this point on – i.e., workers per unit and ratio of all Direct jobs to lodging jobs alone, leading to total new Direct jobs.

    - On all three islands, assumptions mentioned above are adjusted to reflect the existence of non-traditional visitor units distributed throughout each island (i.e., vacation rentals, B&Bs, etc.)

    - On Saipan, a single "Type 2" job-to-job multiplier is applied to calculate Total Tourism jobs. It is assumed that all Indirect and Induced jobs created from

money rippling through the economy are captured by Saipan itself, as this island has by far the CNMI's largest economy.

- On Tinian and Rota, the Indirect and Induced jobs are separately calculated – for Indirect, by applying "Type 1" job-to-job multipliers; and for Induced by use of a multiplier equivalent to subtracting the Type 1 from the Type 2 values. It must be assumed that some of the Induced and even more of the Indirect jobs will flow off-island to Saipan. (Thus, though only to a small extent, Saipan jobcounts reflect assumed economic scenarios on Tinian and Rota as well.)

4. The second component of labor demand is assumed to come from change in ***Casino*** jobs. Casinos are an aspect of tourism, but most of the economic effects come from the small specialized group of "high rollers" whose net losses are now helping to subsidize the government but whose economic behavior is likely very different from the average tourist.

   Therefore, we treat Casinos as a separate sector, and begin that part of the analysis with estimates of Direct Casino jobs for a limited number of possible new operations (depending on the economic scenario).

   - As with Tourism, on Saipan we apply a Type 2 multiplier to estimate Total jobs, all assumed captured on Saipan itself.

   - And again as with Tourism, on Tinian and Rota we separately estimate Indirect and Induced jobs, with differing proportions of each of the latter flowing to Saipan.

5. The third component of labor demand is presumed to flow from new Direct ***Military*** jobs (though only on Tinian). Estimates from available military studies are used for these purposes for each time period. The Indirect and Induced jobs are separately estimated, with differing proportions of each assumed to add to Saipan labor demand.

6. The final component of new labor demand would come from ***Construction***. These jobs are very hard to estimate with even remote accuracy due to the differences in labor demand from different types of projects, but they are temporary and generally have only tangential effect on DPL functions and purposes. Therefore we include very, very rough and judgmental estimates in order to acknowledge that island populations can be temporarily expanded at certain times, but these "illustrative" Direct job numbers are separately reported with caveats about their transience.

   Furthermore, the numbers are *only for the final year in the period* – they are "point-in-time" rather than the cumulative addition of new permanent jobs as with Tourism, Casino, and Military. So a new hotel presumed to open in, say, 2020 will no longer need construction workers that year; if construction workers are assumed in 2020, it would be for some project that actually comes on-line a year or two later. This Model

does not concern itself with attempting a full accounting of Construction labor demand, because of the lack of connection with permanent population.

However, for any year in which significant Construction workers are assumed, these are Direct jobs, and again the Indirect and Induced jobs are calculated from multipliers. Again, on Saipan this is from a single Type 2 multiplier (as all Indirect and Induced jobs are presumed captured on Saipan), but on Tinian and Rota there would be separate calculations of Indirect and Induced jobs, with differing proportions of each assumed to flow to Saipan.

7. On each island, total new labor demand by the final year of the time period is calculated as the sum of Direct, Indirect, and Induced jobs from the four sectors of Tourism, Casino, Military, and Construction.

8. If total labor demand meets or exceeds total effective labor supply from natural increase, there is a need for net in-migration of workers.

   - Although it may not be sufficient to meet all the labor needs, historical evidence (see preceding Section 1.6.1) indicates there *will* be some net in-migration of additional NMD and Non-NMD Residents in good economic times such as the 1990s were. Depending on the economic scenario, different periods of history provide different statistical perspectives on the ratio of in-migration to natural increase under different overall economic conditions.

     In-migrating NMD and Non-NMD Residents are presumed to meet new labor demands before additional CW-1 or other (Foreign) Non-Residents are required to in-migrate.

   - However, if there is still unmet labor demand after considering both natural increase and expected intra-U.S. in-migration residents, then Non-Resident workers are assumed to be needed in all but the “Poor/Negative” Scenario C (which assumes an end to the CW-1 visa program and unlikely issuance of many H-1 or H-2 visas).

9. If total labor demand falls below effective labor supply from natural increase, then net NMD and Non-NMD Resident out-migration is assumed to occur by the end of the time period.

10. Net migration of workers (whether positive in-migration or negative out-migration) is accompanied by dependents. The most recent CNMI data about the ratio of each population group’s total numbers (with dependents and all non-workers) to worker numbers alone then yields an estimate about how many people in total will in-migrate or out-migrate. And similar recent historical data shows the age-sex distribution of these net in-migrants or out-migrants, as described in Section **Error! Reference source not found.**.

11. For each population group on each island (e.g., NMDs on Saipan), the age-sex matrix for net migrants is added to (or subtracted from) the age-sex matrix for natural increase. The resulting merged age-sex distribution is considered to represent that group's combined new population at the end of the period. It becomes the starting age-sex distribution (refer to Step 1 in this series) for the next time period.

12. For the NMD population only, the population 18 and above is estimated, and then reduced by application of recent estimates on eligibility criteria (elimination of household heads married to NMD spouses, household income, home ownership).

Minus this last step, Figure 9 provides an overview of Model logic.

The logic in Figure 9 is particularly applicable to Scenario A and Scenario B. Scenario C follows the same basic approach but subtracts CW-1 workers and dependents from the total available labor supply, as per current federal law to a zero level in 2021. Also for Scenario C, there is very little new labor demand that cannot be met by natural increase, but when that does occur the small numbers are assumed to be met by one-third NMD and two-thirds Non-NMD Resident in-migrants.

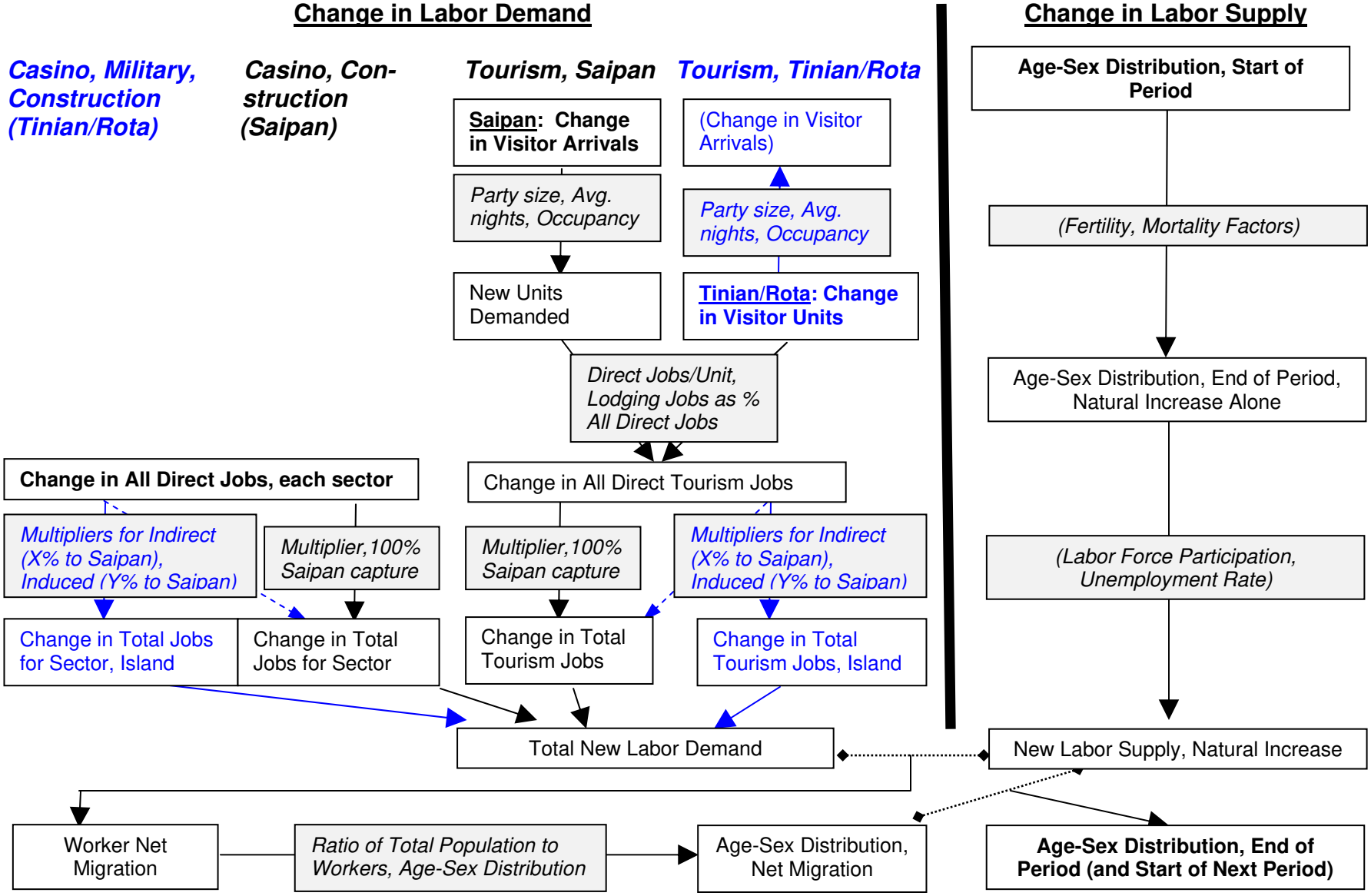
Figure 9 includes some specific assumptions – e.g., multiplier effects, labor force participation rates, etc. – for which detailed values and sources will be provided in Chapter 2.

1.9 Additional Key Model Characteristics

- In order to estimate how much "natural in-migration" of NMD or Non-NMD residents will occur in cases of strong labor demand, we relied on historical data from the preliminary research described in Section **Error! Reference source not found.**. However, this produced negative ratios for some groups under less positive economic scenarios – i.e., it assumed people will out-migrate a little *more* when the poor times are alleviated by small numbers of new jobs coming on-line. Such negative ratios are an artifact of the analytic method that is sometimes at odds with the logic summarized in Figure 9. Therefore, the Model adjusts negative ratios to become zeroes, resulting in slightly higher NMD and non-NMD population estimates in less positive scenarios than if the negative ratios were kept. This is an appropriately conservative step for this analysis, as it would avoid under-estimating NMD numbers and potential homestead applicants to DPL.

- The Model makes similar adjustments to zero values to adjust for situation when it would otherwise be dividing by zero or when there is any potential for negative new labor demand in some years, etc. This means the Model is able to address the possibility of visitor arrivals or visitor units *decreasing*, as could be the case in "Economic Contraction" scenarios.

Figure 9: Model Logic (for Particular Time Period, Island, and Population Group)



1.10 Assessment of Model Strengths and Weaknesses

Key Weaknesses:

- Most models are a patchwork of assumptions, some of them more valid than others. Due to CNMI data limitations, this Model may have more than the usual share of "heroic assumptions."

- Inputs particularly open to question include assumed 2016 island baseline populations, the "Non-NMD Resident" ratios of migration to natural increase (because they are based on Combined Non-NMD and Foreign), and some labor force characteristics from the 2016 HIES (the not-yet-available 2017 Labor Force Survey was actually designed to measure these things, as well as ethnicity, more precisely than the HIES). Also, the Model fundamentally assumes that population levels are a sole function of labor supply/demand, when in reality that is just one of many (but not all "model-able") factors affecting in- and out-migration.

- Given current economic and political uncertainties, particularly about CW-1 visas, there is a possibility that decisions may be made subsequent to Model finalization and analysis in very early 2018 that lead to conditions not envisioned in any of the scenarios used here.

Key Strengths

- This Model includes a fairly complete range of population and labor dynamics. It includes factors that to our knowledge were not previously considered – e.g., natural increase of labor supply, the role of unemployment and labor force participation rates in estimating total labor demand, the need to include multiplier ("ripple") effects in estimating overall demand, and the likelihood of some "natural in-migration" (mostly by Non-NMD in-migrants) in response to economic opportunity.

- It has been created in such a way as to allow DPL or other designated CNMI statisticians to update it if and as better input assumptions become available for many of the factors. This is true both for scenario inputs (casino jobs/timing, visitor arrival levels, etc.) and for other parameters (e.g., possible subsequent use of 2017 Labor Force Survey inputs for population or labor force characteristics).

- Although some restructuring may be needed, basic Model design could allow adaptation for re-use in the early 2020s if DPL does another plan in five years. (That is why the Model includes time projection periods going past 2028.) There are currently some uncertainties about how the 2020 Census will be designed and what data will be available for the CNMI, but hopefully there will be good 2020 age-sex numbers by island for the three population components of NMD, Non-NMD Residents, Foreign Non-Residents.

2. MODEL SPECIFICATIONS AND NEW LABOR DEMAND RESULTS

The previous chapter described the history and logic of Model development, culminating in a general description of its structure. This chapter begins with a description of specific quantitative inputs and then presents major results – with a focus on labor demand – for each island and each scenario. The following Chapter 3 presents and discusses more fully elaborated population results.

2.1 Specific Assumptions for Analysis

A critical initial assumption involves actual "present" (2016) population levels for each island, as these are the baseline numbers for future projections. We relied upon (a) the Pacific Community's estimate of 55,700 for the total CNMI population, as this suggests at least some growth over the 2010 Census population in light of recent increased economic activity; and (b) the CNMI's 2016 Household Income and Expenditure Survey (HIES) for *proportions* of the total population allocated by island and/or population component (NMD, Non-NMD, Non-Resident). In essence, we used the "2016B" numbers from Table 2 in Chapter 1.[26]

2.1.1 Economic Scenarios (Inputs and Overall Economic Conditions)

The Model necessarily requires many assumptions. This section presents assumptions that can vary by time period in the Model's calculations, while the following Section 2.1.2 presents the assumptions that are fixed across time periods. Additionally, Section 2.1.3 discusses assumptions pertaining to fertility, mortality, and NMD eligibility.

- The following Table 4 shows most of the major assumptions related to labor demand for Scenario A. Table 5 and Table 6 provide the same information for Scenarios B and C, respectively. Footnotes to these tables include important context and qualifications.

- While each scenario is generally dominated by the conditions implied by its overall name (e.g., "High-Growth"), particular time periods may have slightly different "economic conditions" – for Tinian and Rota in "High-Growth" Scenario A, nothing currently indicates continued growth after 2028 even for this scenario, and so "poor-negative" economic conditions may again prevail for these particular times. In effect, there's a little bit of Scenario C at the tail end of the overall Scenario A for these two islands.

  Table 7 specifies presumed labor force characteristics and other parameters for each "economic condition," each time-limited mini-scenario.

[26] Results in following tables (both Chapters 2 and 3) may not add up to the exact totals shown in the "2016B" column of Table 2 due to rounding at various different stages of the calculation process.

Table 4: Scenario A (High-Growth) Specific Assumptions and Matching "Overall Economic Conditions" by Time Period

	Period 1 (2016-2020)	Period 2 (2021-2025)	Period 3 (2026-2028)	Period 4 (2029-2030)	Period 5 (2031-2035)
Specific to Saipan					
Conceptual Description (Summary)	*Tourism growth unconstrained -- Horwath "averaged" projections*				
Visitor Arrivals, Base Year for Period	653,150	858,631	1,036,620	1,134,269	1,199,698
Change in Visitor Arrivals End Minus Beginning of Period	205,481	177,989	97,649	65,429	165,944
Change in Direct Casino Jobs Since Beginning of Period	0	0	1,500	0	0
Change in Direct Military Jobs Since Beginning of Period	0	0	0	0	0
Presumed On-Island Construction Worker Count at End of Period	1,000	800	700	500	355
Assumed "Overall Economic Conditions" for Each Period[a]	HiGrow	HiGrow	HiGrow	HiGrow	HiGrow
Specific to Tinian					
Conceptual Description (Summary)	*Two casino hotels, joint military training and divert airfield construction*				
Change in Standard Visitor Units Since Beginning of Period	400	0	300	0	0
Change in Budget/Automated Units Since Beginning of Period	0	0	0	0	0
Change in Direct Casino Jobs Since Beginning of Period[b]	1,020	0	640	0	0
Change in Direct Military Jobs Since Beginning of Period	0	0	95	0	0
Presumed On-Island Construction Worker Count at End of Period	0	1,096	0	0	0
Assumed "Overall Economic Conditions" for Each Period[a]	HiGrow	HiGrow	HiGrow	Poor-Neg	Poor-Neg
Specific to Rota					
Conceptual Description (Summary)	*Luxury tourism development (three small high-end hotels)*				
Change in Luxury Visitor Units Since Beginning of Period	75	75	75	0	0
Change in Budget/Automated Units Since Beginning of Period	0	0	0	0	0
Change in Direct Casino Jobs Since Beginning of Period	0	0	0	0	0
Change in Direct Military Jobs Since Beginning of Period	0	0	0	0	0
Presumed On-Island Construction Worker Count at End of Period	95	95	0	0	0
Assumed "Overall Economic Conditions" for Each Period[a]	HiGrow	HiGrow	HiGrow	Poor-Neg	Poor-Neg

[a] The three different "Overall Economic Conditions" are each associated with varying Labor Force Participation Rates, Unemployment Rates, Ratios of Migration to Natural Increase, and Age-Sex Characteristics of In-Migrant Groups (specified in subsequent exhibit). Note that -- especially for Tinian and Rota -- an overall "High Growth" scenario can still have periods with lower growth.

[b] Tinian casino-specific jobs estimated as Total On-Site Jobs for each operation minus the separately-calculated hotel-related jobs.

Table 5: Scenario B (Medium-Growth/Status Quo) Specific Assumptions and Matching "Overall Economic Conditions" by Time Period

	Period 1 (2016-2020)	Period 2 (2021-2025)	Period 3 (2026-2028)	Period 4 (2029-2030)	Period 5 (2031-2035)
Specific to Saipan					
Conceptual Description (Summary)	*Tourism growth constrained by infrastructure: Horwath "sustainable"*				
Visitor Arrivals, Base Year for Period	653,150	750,000	750,000	750,000	750,000
Change in Visitor Arrivals End Minus Beginning of Period	96,850	0	0	0	0
Change in Direct Casino Jobs Since Beginning of Period	0	0	0	0	0
Change in Direct Military Jobs Since Beginning of Period	0	0	0	0	0
Presumed On-Island Construction Worker Count at End of Period	355	0	0	0	0
Assumed "Overall Economic Conditions" for Each Period[a]	HiGrow	Medium	Poor-Neg	Poor-Neg	Poor-Neg
Specific to Tinian					
Conceptual Description (Summary)	*One casino-hotel by 2028; military training and divert airfield*				
Change in Standard Visitor Units Since Beginning of Period	0	0	400	0	0
Change in Budget/Automated Units Since Beginning of Period	0	0	0	0	0
Change in Direct Casino Jobs Since Beginning of Period[b]	0	0	1,020	0	0
Change in Direct Military Jobs Since Beginning of Period	0	0	95	0	0
Presumed On-Island Construction Worker Count at End of Period[c]	0	1,221	0	0	0
Assumed "Overall Economic Conditions" for Each Period[a]	Poor-Neg	HiGrow	HiGrow	Poor-Neg	Poor-Neg
Specific to Rota					
Conceptual Description (Summary)	*One small luxury hotel by 2025*				
Change in Luxury Visitor Units Since Beginning of Period	0	75	0	0	0
Change in Budget/Automated Units Since Beginning of Period	0	0	0	0	0
Change in Direct Casino Jobs Since Beginning of Period	0	0	0	0	0
Change in Direct Military Jobs Since Beginning of Period	0	0	0	0	0
Presumed On-Island Construction Worker Count at End of Period	95	0	0	0	0
Assumed "Overall Economic Conditions" for Each Period[a]	Medium	HiGrow	Poor-Neg	Poor-Neg	Poor-Neg

[a] The three different "Overall Economic Conditions" are each associated with varying Labor Force Participation Rates, Unemployment Rates, Ratios of Migration to Natural Increase, and Age-Sex Characteristics of In-Migrant Groups (specified in subsequent exhibit). Note that -- especially for Tinian and Rota -- an overall "High Growth" scenario can still have periods with lower growth.

[b] Tinian casino-specific jobs estimated as Total On-Site Jobs for each operation minus the separately-calculated hotel-related jobs.

[c] Construction worker estimate for 2025 on Tinian higher than for Scenario B because a somewhat larger hotel (in addition to military activities) is assumed for this scenario.

Table 6: Scenario C (Poor-Negative Growth) Specific Assumptions and Matching "Overall Economic Conditions" by Time Period

	Period 1 (2016-2020)	Period 2 (2021-2025)	Period 3 (2026-2028)	Period 4 (2029-2030)	Period 5 (2031-2035)
Specific to Saipan					
Conceptual Description (Summary)	*Reduction in visitor arrivals (equivalent to revocation China parole)*				
Visitor Arrivals, Base Year for Period	653,150	354,153	394,153	418,153	434,153
Change in Visitor Arrivals End Minus Beginning of Period[a]	-298,997	40,000	24,000	16,000	40,000
Change in Direct Casino Jobs Since Beginning of Period	0	0	0	0	0
Change in Direct Military Jobs Since Beginning of Period	0	0	0	0	0
Change in Standard Visitor Units Since Beginning of Period	0	0	0	0	0
Change in Budget/Automated Units Since Beginning of Period	0	0	0	0	0
Assumed "Overall Economic Conditions" for Each Period[b]	Poor-Neg	Poor-Neg	Poor-Neg	Poor-Neg	Poor-Neg
Specific to Tinian					
Conceptual Description (Summary)	*Military training development only, no divert airfield, one budget hotel*				
Change in StandardVisitor Units Since Beginning of Period	0	0	0	0	0
Change in Budget/Automated Units Since Beginning of Period[a]	0	0	20	0	0
Change in Direct Casino Jobs Since Beginning of Period	0	0	0	0	0
Change in Direct Military Jobs Since Beginning of Period	0	0	95	0	0
Change in Luxury Visitor Units Since Beginning of Period	0	571	0	0	0
Change in Budget/Automated Units Since Beginning of Period	0	0	0	0	0
Assumed "Overall Economic Conditions" for Each Period[b]	Poor-Neg	HiGrow	Medium	Poor-Neg	Poor-Neg
Specific to Rota					
Conceptual Description (Summary)	*No growth other than one budget hotel*				
Change in Luxury Visitor Units Since Beginning of Period	0	0	0	0	0
Change in Budget/Automated Units Since Beginning of Period[a]	0	0	20	0	0
Change in Direct Casino Jobs Since Beginning of Period	0	0	0	0	0
Change in Direct Military Jobs Since Beginning of Period	0	0	0	0	0
Presumed On-Island Construction Worker Count at End of Period	0	0	0	0	0
Assumed "Overall Economic Conditions" for Each Period[b]	Poor-Neg	Poor-Neg	Medium	Poor-Neg	Poor-Neg

Assumptions About CW-1 Worker Caps Applied to All Three Islands

Each island assumed to bear proportionate burden (based on 2016 HIES data for Foreign Residents/Workers) of declining caps:

	2016	2017[c]	2018	2019	2020	2021
Construction	3,443	3,456	0	0	0	0
Non-Construction	9,856	9,892	9,998	4,999	2,499	0
Total (CNMI-Wide)	**13,299**	**13,348**	**9,998**	**4,999**	**2,499**	**0**

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[a] The exact impact of CW-1 workers loss on visitor arrivals has not been established, though the U.S. General Accounting Office has estimated a 26% to 62% drop from the CNMI's 2015 GDP. We applied the 26% figure to the 2015 visitor arrival number to estimate the 2020 visitor arrival figure, with the implicit assumption that other parts of the economy could suffer as well. Then, following presumed CW-1 worker loss, we assume some partial recovery from "adaptive response." On Tinian and Rota, this is explicitly assumed to be one small budget hotel each to meet remaining demand; on Saipan, implicitly assumed to be something like conversion of many standard hotels to be more automated, low-employee operations.

[b] The three different "Overall Economic Conditions" are each associated with varying Labor Force Participation Rates, Unemployment Rates, Ratios of Migration to Natural Increase, and Age-Sex Characteristics of In-Migrant Groups (specified in subsequent exhibit).

[c] U.S. H.R. 339 increased original 12,998 cap slightly but took Construction to zero for future years. The 2017 construction worker figure varied through the year and included illegal non-CW1 visas. This is a mid-year estimate based on proportions of Construction/Non-Construction from 2016.

Table 7: Labor Force and Net Migrant Characteristics Associated with Each "Overall Economic Condition"

All of these are derived from study of CNMI-wide change (island-specific data were unavailable from past Censuses) from three time periods in which actual general economic conditions roughly matched the three categories previously set forth, as follows:

	"Hi Growth"	*1990-2000*			*"Medium"*	*2010-16*			*"Poor-Neg"*	*2000-2010*		
	High Growth Scenario A				**Medium Growth Scenario B**				**Poor-Negative Scenario C**			
	Total	**NMD**	**Non-NMD**	**Foreign**	**Total**	**NMD**	**Non-NMD**	**Foreign**	**Total**	**NMD**	**Non-NMD**	**Foreign**
Ratio, In-Migration to Natural Increase for Pop. Groups[a]		0.05	0.51			0.05	0.51			-0.15	-0.44	
Labor Force Participation Rates[b]	77%	64%	71%	90%	77%	64%	71%	90%	70%	58%	65%	82%
Unemployment Rates[c]	3.5%	5.1%	3.3%	2.8%	3.5%	5.1%	3.3%	2.8%	20.0%	29.3%	18.8%	15.7%

Age-Sex Distribution of Any Resident In-Migrants[d]	**NMD Male**	**NMD Female**	**Non-NMD Male**	**Non-NMD Female**	**NMD Male**	**NMD Female**	**Non-NMD Male**	**Non-NMD Female**	**NMD Male**	**NMD Female**	**Non-NMD Male**	**Non-NMD Female**
0-4	22.8%	18.0%	0.3%	0.3%	1.9%	5.7%	6.7%	6.7%	1.3%	1.3%	5.2%	4.7%
5-9	17.3%	17.8%	0.3%	0.3%	4.2%	2.7%	16.4%	9.7%	1.8%	1.3%	4.6%	4.1%
10-14	15.5%	16.9%	0.3%	0.3%	10.3%	10.1%	17.9%	17.9%	0.7%	1.0%	1.9%	2.5%
15-19	0.0%	0.0%	0.2%	3.7%	12.4%	5.5%	13.1%	12.4%	4.2%	2.7%	1.1%	1.8%
20-24	-12.4%	-15.1%	4.6%	25.8%	8.0%	7.0%	2.0%	2.0%	13.9%	14.4%	1.3%	3.3%
25-29	-9.4%	-5.1%	13.2%	30.0%	5.1%	3.2%	1.7%	1.7%	11.9%	10.4%	0.9%	6.2%
30-34	10.4%	4.4%	12.6%	15.5%	4.6%	3.0%	-0.8%	-0.8%	5.0%	6.1%	1.9%	10.3%
35-39	3.2%	3.2%	5.7%	2.4%	1.3%	3.4%	-0.5%	-0.5%	4.3%	2.6%	2.8%	10.6%
40-44	11.5%	8.7%	1.2%	-0.3%	4.1%	2.4%	-0.5%	-0.5%	0.4%	1.9%	3.1%	7.5%
45-49	5.5%	1.1%	-2.5%	-0.8%	0.8%	3.3%	-1.1%	-1.1%	1.5%	2.5%	3.2%	5.2%
50-54	5.2%	5.3%	-3.2%	-1.2%	0.2%	0.2%	-0.2%	-0.2%	0.1%	0.4%	2.7%	2.8%
55-59	-7.8%	-6.0%	-3.4%	-0.9%	0.2%	0.2%	-0.3%	-0.3%	0.9%	1.0%	2.8%	1.8%
60-64	-1.5%	-1.4%	-2.1%	-0.4%	0.1%	0.2%	-0.3%	-0.3%	0.3%	0.3%	2.0%	1.4%
65-69	-3.8%	0.4%	-1.2%	-0.2%	0.0%	0.0%	-0.1%	-0.1%	2.0%	1.8%	1.3%	0.8%
70-74	-1.2%	-0.8%	-0.1%	-0.1%	0.0%	0.0%	-0.1%	-0.1%	0.8%	0.7%	0.6%	0.5%
75+	-1.7%	-1.1%	-0.1%	-0.1%	0.0%	0.0%	-0.1%	-0.1%	1.6%	1.1%	0.7%	0.3%

Footnotes on next page

[a] Negative values reported here for historical purposes, but actually set to zero by Model for calculation purposes.

[b] Assumes participation rates increase, for first two scenarios. Saipan 2016 LFPR rates were 57.5% for NMD; 64.2% for Non-NMD; and 81.7% for Foreign Non-Residents. Total was 69.7%, brought up by Non-Residents. Tinian 2016 LFPR rates were 65.4% for NMD; 71.9% for Non-NMD; and 71.4% for Foreign. Total was 69.6%, same as for Saipan. Rota 2016 LFPR rates were 69.7% for NMD; 78.5% for Non-NMD; and 88.0% for Foreign. Total was 77.2%, highest in CNMI. The U.S. average peaked at about 67%, though has recently averaged about 63%. Generally, LFPR increases in good economic times and falls back in less good times. The Model's judgmental assumptions reflect each scenario and preserve observed ratios (e.g., lower for NMD). Rates specific to each population group reflect proportions from 2016 HIES.

[c] Assumes unemployment rates decrease, for first two scenarios. Saipan 2016 unemployment rates were 18.9% for NMD; 12.1% for Non-NMD; and 10.2% for Foreign. Total was 17.5%. Tinian 2016 unemployment rates were 21.9% for NMD; 17.4% for Non-NMD; and 24.0% for Non-Residents. Total was 21.6%. Rota 2016 unemployment rates were 0% for NMD; 0% for Non-NMD; and 5.2% for Non-Residents. Total was 2.0%. The very low Rota unemployment rate (perhaps as well as the high labor force participation rate) according to the 2016 HIES is surprising, given the island's lack of economic development. This model assumes future figures more like those for Tinian. Generally,unemployment rates decrease in good economic times and increase in bad times. Economists often consider 4.0% to be "full employment," though Hawai‘i dipped to 2.2% in Oct. 2017. The Model's judgmental assumptions reflect each scenario and utilize observed ratios (e.g., higher for NMD). Rates specific to each population group reflect proportions from 2016 HIES.

[d] The original intent was to have island- specific historical information for NMDs here. That did not prove possible with available Census data. The CNMI-wide historical info for NMD's seems like a reasonable proxy, however. It would be particularly valid for Saipan. Tinian and Rota Census or survey data tend to be less certain because of sample size issues at any rate. The percentages used here result from a "smoothed" estimate of NMD (and Non-NMD U.S. Resident) In-Migrant characteristics that preserve the overall distributional shape but eliminate some minor probable errors that tended to make the Model choke.

2.1.2 Fixed-Value Inputs

Table 10 (next page) shows assumptions about quantitative values fixed across time periods for estimating labor demand, while Table 11 shows factors associated with labor supply, particularly multipliers used to estimate total population (with dependents) for each population group. Again, footnotes (especially for Table 10) provide useful context and qualifications. Ways that each of these variables is used in the Model are set forth in Figure 9 (showing Model logic and structure) at the end of Chapter 1.

Additional Assumptions Specific to Scenario C: The foregoing Table 6 showed assumed declining caps of CW-1 workers for CNMI. Additionally –

- 80% of Non-Resident (Foreign) population were assumed to be linked to CW-1 visas.

- In the rare and limited cases within Scenario C that in-migrant labor might be needed in subsequent years (a few time periods for Tinian), this was assumed to be one-third NMD and two-thirds Non-NMD, no foreign.

2.1.3 Assumptions Related to Fertility, Mortality, and NMD Eligibility for Awards

As noted in Chapter 1, we worked with Dr. Michael Levin to develop these assumptions, the first two of which were used to "age" the population to estimate natural increase.[27]

Mortality: Based on a mix of CNMI vital statistics and HIES data, the one-year survival rates shown in
Table 8 (next page) were used across all time periods, islands, and population.

Fertility: This was more complex, because birth rates are known to be falling over the years. We needed annual estimates extending back to 1990 (as these were also used in the initial historical research phase) and extending out 2035. Dr. Levin provided Citizen vs. Non-Citizen age-specific female birth rates at various points in time back to the late 1970s, and JMK Associates used multiple regression analysis to develop year-by-year estimates for NMD and Non-NMD for each adult female age cohort of child-bearing years. We checked implied total population birth rates against several Pacific and national sources, and found results to be consistent and credible. Exact estimates are too complex to be summarized here but are available on request.

NMD Eligibility for DPL Homestead Awards: (1) *Dis*qualification of adults occurs if spouses is also NMD; (2) Remaining households *qualify* if below $70,000 household income and not already homeowners. The figures shown in Table 9 (following page) were based on HIES data analyzed by Dr. Levin and were used across all time periods, islands, and population.

[27] We made some additional calculations based on his inputs and are responsible for final figures.

Table 8: Assumed Annual CNMI Survival Rates by Age-Sex Cohort

	Male	Female
Infant	99.33%	99.33%
1-4	99.95%	99.95%
5-9	99.99%	99.99%
10-14	99.98%	99.98%
15-19	99.97%	99.97%
20-24	99.93%	99.93%
25-29	99.92%	99.92%
30-34	99.90%	99.90%
35-39	99.90%	99.90%
40-44	99.86%	99.86%
45-49	99.75%	99.75%
50-54	99.59%	99.59%
55-59	99.04%	99.04%
60-64	98.40%	98.40%
65-69	96.62%	96.62%
70-74	96.93%	96.93%
75+	90.46%	90.46%

Table 9: NMD Eligibility Criteria (Frequency in CNMI Population)

	% Adult NMD Females w/ NMD Spouses	% NMD HHs Under $70K, Not Homeowners
15-19	0.00%	100.00%
20-24	2.29%	83.44%
25-29	2.47%	65.47%
30-34	7.43%	59.77%
35-39	16.76%	46.49%
40-44	22.51%	24.16%
45-49	39.68%	9.73%
50-54	30.24%	22.04%
55-59	56.27%	18.08%
60-64	34.66%	11.31%
65-69	25.37%	11.31%
70-74	24.75%	11.31%
75+	24.75%	11.31%

Table 10: Labor Demand Assumptions Fixed Across All Time Periods

		Source
Common Across All Three Islands		
On-Site Jobs Per Visitor Unit, Standard Hotels	0.70	HANMI
(Exception: Rota Luxury Units, Scenarios A and B)	1.50	JMK assumption after interviews w/ various private, public figures
Party Size Per Unit, This Island	2.00	Industry Standard Assumption
Avg. Nights on This Island	4.20	JMK assumption based on review of MVA data[a]
Assumed Occupancy Levels	80%	Interviews: General Industry Target
Direct Hotel Construction Jobs Per Unit (avg. annual)[b]		
-- Saipan	1.127	Average of available jobs/hotel as summarized by BECQ
-- Tinian and Rota	1.25	Historical Tinian construction counts in news reports
Specific to Saipan		
On-Site Lodging Jobs as % of All Direct Tourism Jobs	50%	JMK assumption based on review of Hawai'i I-O, Other Data[c]
Type 2 Tourism Job Multiplier	1.45	JMK assumption after review of Hawai'i I-O, CNMI IMPLAN[d]
Type 2 Casino Job Multiplier	1.65	IMPLAN for CNMI (2015 Multipliers)
Type 2 Military Job Multiplier	1.73	IMPLAN for CNMI (2015 Multipliers)
Type 2 Construction Job Multiplier	1.34	IMPLAN for CNMI (2015 Multipliers)
Specific to Tinian and Rota		
On-Site Lodging Jobs as % of All Direct Tourism Jobs	67%	JMK assumption based on review of Hawai'i I-O, Other Data[c]
% All Indirect Jobs Assumed Exported to Saipan	70%	JMK judgmental assumption[e]
% All Induced Jobs Assumed Exported to Saipan	50%	JMK judgmental assumption[e]
Type 1 (Indirect) Tourism Job Multiplier	1.20	JMK assumption after review of Hawai'i I-O, CNMI IMPLAN[d]
Induced (Type 2 - Type 1 + 1) Tourism Job Multiplier	1.25	JMK assumption after review of Hawai'i I-O, CNMI IMPLAN[d]
Type 1 (Indirect) Casino Job Multiplier	1.5091	IMPLAN for CNMI (2015 Multipliers)
Induced (Type 2 - Type 1) Casino Job Multiplier	1.1391	IMPLAN for CNMI (2015 Multipliers)
Type 1 (Indirect) Military Job Multiplier	1.0000	IMPLAN for CNMI (2015 Multipliers)
Induced (Type 2 - Type 1) Military Job Multiplier	1.7282	IMPLAN for CNMI (2015 Multipliers)
Type 1 (Indirect) Construction Job Multiplier	1.2455	IMPLAN for CNMI (2015 Multipliers)
Induced (Type 2 - Type 1) Construction Job Multiplier	1.0959	IMPLAN for CNMI (2015 Multipliers)

Footnotes on next page

[a] The Marianas Visitors Authority had limited data (FY 2003 to 2012 for selected major markets) on length of stay, but it indicated a trend toward increasing times on island. The 2012 average was about 3.8, so we use 4.2 for updated figure. We use the same figure for all islands, which tends to imply single-island visits. This overlooks current short day trips from Saipan to Tinian and Rota, which do have some (but relatively minimal) economic benefits for the smaller islands.

[b] Construction job estimates for military projects came from respective military EIS studies previously cited.

[c] We also explored the 2012 CNMI Economic Census, the 2003 Labor Force Survey, and the 2000 Census American Community Survey for CNMI. These sources were more suggestive than specific. Data from various Hawai'i Input-Output (I-O) analyses over the years -- 2002, 2007, and 2012 -- indicate a trend toward higher proportions of off-hotel jobs (i.e., lower percentages of lodging jobs as percent of total) as the industry grows. The 2002 figures for Hawai'i's three "Neighbor Island" areas averages were in the 40% to 50% range, so we assume 50% for Saipan but much higher percentages (about 67% each) for the less developed Tinian and Rota.

[d] This is a key but necessarily judgmental assumption. The Hawai'i I-O Model since 2002 has had a form of overall "Tourism Industry" multipliers by counties (mostly equal to islands). Kaua'i and Maui are each larger than Saipan but are the islands closest in size of resident and visitor population to the smaller CNMI. The I-O values from 2002 (closer to CNMI levels now) for both these islands were about 1.35 for Type 1 and 1.77 for Type 2. The IMPLAN I-O for CNMI (2015) lacks an overall Tourism multiplier, but available multipliers for some key sectors such as Accom- modations and Food/Drink are clearly lower than similar sector-specific current numbers for Hawai'i, likely due to the high current proportions of CW1 workers who do not spend as much in the local economy. So we judgmentally assume overall CNMI "Tourism" multipliers somewhat higher than current IMPLAN multipliers for Accommodations for CNMI but lower than Hawai'i's figures for small counties. The selected figures of 1.45 for Type 2 and 1.20 for Type 1 may in future be replaced if better estimates become available.

[e] We did not find a statistical basis to guide this assumption, but islands as small as Tinian/Rota generally require businesses to purchase many of their needs from purveyors on Saipan (generating indirect jobs), though employees spend more of their money on island (generating induced jobs). The assumed 70% and 50% are definitely "guesstimates," which may be updated in the future if more solid evidence becomes available.

Table 11: Labor Supply Assumptions Fixed Across All Time Periods

	NMD	Non-NMD Resident	Foreign Worker	Source
Specific to Saipan				
Ratio of Group Population to Group Workers	2.46	2.98	1.28	Special Analysis of 2016 HIES Data
Specific to Tinian				
Ratio of Group Population to Group Workers	2.56	2.59	1.55	Special Analysis of 2016 HIES Data
Specific to Rota				
Ratio of Group Population to Group Workers	2.17	3.05	1.15	Special Analysis of 2016 HIES Data

Note: Also specific to each island are estimated population increases from natural increase derived from age-sex cohort calculations for each island. That information is difficult to summarize succinctly here.

2.2 Results: Summaries of Labor Demand and Population Estimates by Island

The Model has two different major sets of outputs:

- Summaries of labor demand and population estimates by island for each scenario. These are presented here in the following tables (Table 12 to Table 20) with brief textual discussion for each island. The tables include assumed construction figures but timing for construction is particularly uncertain and so emphasis in this section is more on relatively "permanent" labor demand from operational jobs.

- More detailed analyses of population estimates in particular, the main focus of this study. These are presented and discussed in the following Chapter 3, and so the focus of discussion in this section will be more on labor demand.

2.2.1 Saipan

Table 12 to Table 14 show Saipan results by scenario. The upper part of each table shows incremental results by each time projection period (mostly five-year periods, but with the 2026-2030 period split to allow calculation of 2028 results), with the lower part displaying cumulative effects over time.

The Saipan part of the Model begins first with projected Visitor Arrivals, and then calculates the implied number of new visitor units needed, rather than assuming every proposed new unit will be developed and well occupied. This means that Saipan unit counts may also include non-hotel lodging units (vacation rentals, condo-tels, etc.).

Total new labor demand is a function not only of direct jobs in primary economic sectors (tourism, gaming, military), but also of the multiplier or "ripple" effects from those industries. These have generally not been addressed in recent estimates of CNMI labor demand. Saipan will likely be the site of some "ripple effect" jobs from Tinian/Rota development. Normal unemployment rates also add a small amount to total worker demand absorbing natural increase or generating in-migration in Scenarios A and B.

The different scenarios generate very different estimates of new labor demand by 2028:

Figure 10: Cumulative 2028 New Operational Labor Demand by Scenario, Saipan

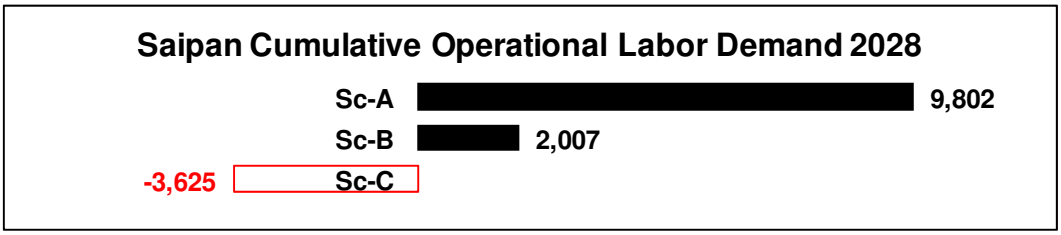


Table 12 for Scenario C suggests elimination of CW-1 visas and consequent impacts on tourism could cost about 4,700 in Saipan labor demand by 2020, but the assumption of some gradual recovery thereafter brings the net loss to 3,625 by 2028.

Table 12: Summary of New Labor Demand and Population for Saipan, Scenario A

SAIPAN

Scenario Name: Saipan Sc-A

Scenario Summary Description: Visitor Arrivals Unconstrained by Infrastructure or Labor; New Casino by 2028

	Period:	1	2	3	4	5
	End Yr:	2020	2025	2028	2030	2035
Scenario Economic Assumptions						
Change in Visitor Arrivals Since Beginning of Period:		205,481	177,989	97,649	65,429	165,944
Est. Change in Visitor Units Since Beginning of Period (80% Occupancy):		1,477	1,279	702	470	1,193
Change in Direct Casino Jobs Since Beginning of Period:		0	0	1500	0	0
Change in Direct Military Jobs Since Beginning of Period:		0	0	0	0	0
Presumed On-Island Construction Worker Count at End of Period		1000	800	700	500	355
(Point-in-time assumption linked to major projects presumed to open in next year or two.)						
Total New Workers (Direct and Ripple Effects) Required, This Island						
Assumed Unemployment Rate		*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*
Effects of Change in Visitor Units		2,570	2,226	1,221	818	2,075
Effecs of Change in Casino Jobs		0	0	2,472	0	0
Effects of Change in Military Jobs		0	0	0	0	0
Ripple Effects from Operational Jobs on Tinian and Rota		566	0	405	0	0
Additions to Unemployment at Rate Assumed This Period		114	81	149	30	75
Sub-Total, Operational Sources		***3,249***	***2,307***	***4,247***	***848***	***2,150***
Effects of Change in Construction Worker Count (point-in-time estimate)		1,341	1,073	939	671	476
Ripple Effects from Construction Jobs on Tinian and Rota		21	262	0	0	0
Additions to Unemployment at Rate Assumed This Period		49	48	34	24	17
Sub-Total, Construction Sources		***1,412***	***1,383***	***973***	***695***	***493***
Cumulative Economic Changes (Operational) Defining Scenario						
Change in Visitor Arrivals Over Baseline		205,481	383,470	481,119	546,548	712,492
Change in Visitor Units Over Baseline		1,477	2,756	3,458	3,928	5,121
Change in Direct Casino Jobs Over Baseline		0	0	1,500	1,500	1,500
Change in Direct Military Jobs Over Baseline		0	0	0	0	0
Cumulative New Worker Demand This Island						
Operations Only		3,249	5,555	9,802	10,650	12,800
(Construction Work Counts by Nature Are Not Cumulative)						
Total Population Level, This Island -- Operations Only		**55,118**	**60,468**	**67,414**	**69,607**	**74,812**
NMD		17,186	18,234	18,798	19,138	19,876
Non-NMD		19,698	23,962	26,986	28,849	33,451
Foreign		18,233	18,271	21,630	21,620	21,486
Total Population Level, This Island -- Including Presumed Construction		**56,922**	**62,236**	**68,658**	**70,495**	**75,443**
NMD		17,186	18,234	18,798	19,138	19,876
Non-NMD		19,698	23,962	26,986	28,849	33,451
Foreign		20,038	20,039	22,874	22,508	22,116

Table 13: Summary of New Labor Demand and Population for Saipan, Scenario B

SAIPAN

Scenario Name: Saipan Sc-B

Scenario Summary Description: Visitor Arrivals Soon Plateau at Horwath's "Sustainable" Level; No 2nd Casino

	Period:	1	2	3	4	5
	End Yr:	2020	2025	2028	2030	2035
Scenario Economic Assumptions						
Change in Visitor Arrivals Since Beginning of Period:		96,850	0	0	0	0
Est. Change in Visitor Units Since Beginning of Period (80% Occupancy):		696	0	0	0	0
Change in Direct Casino Jobs Since Beginning of Period:		0	0	0	0	0
Change in Direct Military Jobs Since Beginning of Period:		0	0	0	0	0
Presumed On-Island Construction Worker Count at End of Period		355	0	0	0	0
(Point-in-time assumption linked to major projects presumed to open in next year or two.)						
Total New Workers (Direct and Ripple Effects) Required, This Island						
Assumed Unemployment Rate		*3.50%*	*7.00%*	*20.00%*	*20.00%*	*20.00%*
Effects of Change in Visitor Units		1,211	0	0	0	0
Effecs of Change in Casino Jobs		0	0	0	0	0
Effects of Change in Military Jobs		0	0	0	0	0
Ripple Effects from Operational Jobs on Tinian and Rota		0	0	601	0	0
Additions to Unemployment at Rate Assumed This Period		44	0	150	0	0
Sub-Total, Operational Sources		***1,255***	***0***	***752***	***0***	***0***
Effects of Change in Construction Worker Count (point-in-time estimate)		476	0	0	0	0
Ripple Effects from Construction Jobs on Tinian and Rota		21	268	0	0	0
Additions to Unemployment at Rate Assumed This Period		18	20	0	0	0
Sub-Total, Construction Sources		***515***	***289***	***0***	***0***	***0***
Cumulative Economic Changes (Operational) Defining Scenario						
Change in Visitor Arrivals Over Baseline		96,850	96,850	96,850	96,850	96,850
Change in Visitor Units Over Baseline		696	696	696	696	696
Change in Direct Casino Jobs Over Baseline		0	0	0	0	0
Change in Direct Military Jobs Over Baseline		0	0	0	0	0
Cumulative New Worker Demand This Island						
Operations Only		1,255	1,255	2,007	2,007	2,007
(Construction Work Counts by Nature Are Not Cumulative)						
Total Population Level, This Island -- Operations Only		**51,420**	**49,091**	**50,559**	**50,517**	**49,714**
NMD		17,110	17,462	17,958	18,073	18,164
Non-NMD		17,751	15,443	16,322	16,540	16,879
Foreign		16,560	16,186	16,279	15,904	14,672
Total Population Level, This Island -- Including Presumed Construction		**52,117**	**49,925**	**50,559**	**50,517**	**49,714**
NMD		17,158	17,589	17,958	18,073	18,164
Non-NMD		18,029	16,150	16,322	16,540	16,879
Foreign		16,930	16,186	16,279	15,904	14,672

Table 14: Summary of New Labor Demand and Population for Saipan, Scenario C

SAIPAN

Scenario Name: Saipan Sc-C

Scenario Summary Description: CW-1 Visas End; Labor Supply Issues Decimate Visitor Arrivals; Partial Recovery

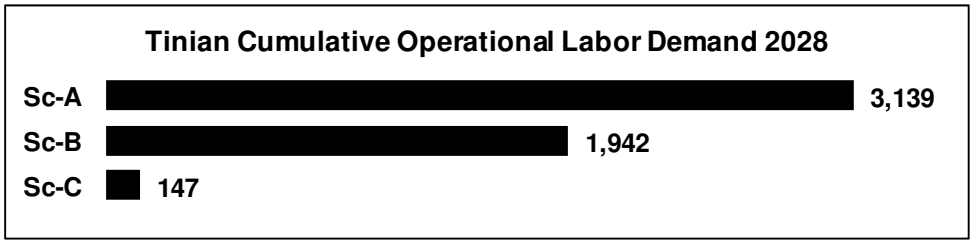
	Period:	1	2	3	4	5
	End Yr:	2020	2025	2028	2030	2035
Scenario Economic Assumptions						
Change in Visitor Arrivals Since Beginning of Period:		-298,997	40,000	24,000	16,000	40,000
Est. Change in Visitor Units Since Beginning of Period (80% Occupancy):		-2,149	287	172	115	287
Change in Direct Casino Jobs Since Beginning of Period:		0	0	0	0	0
Change in Direct Military Jobs Since Beginning of Period:		0	0	0	0	0
Presumed On-Island Construction Worker Count at End of Period		0	0	0	0	0
(Point-in-time assumption linked to major projects presumed to open in next year or two.)						
Total New Workers (Direct and Ripple Effects) Required, This Island						
Assumed Unemployment Rate		*20.00%*	*20.00%*	*20.00%*	*20.00%*	*20.00%*
Effects of Change in Visitor Units		-3,739	500	300	200	500
Effecs of Change in Casino Jobs		0	0	0	0	0
Effects of Change in Military Jobs		0	0	0	0	0
Ripple Effects from Operational Jobs on Tinian and Rota		0	0	39	0	0
Additions to Unemployment at Rate Assumed This Period		-935	125	85	50	125
Sub-Total, Operational Sources		***-4,674***	***625***	***424***	***250***	***625***
Effects of Change in Construction Worker Count (point-in-time estimate)		0	0	0	0	0
Ripple Effects from Construction Jobs on Tinian and Rota		0	125	-1	0	0
Additions to Unemployment at Rate Assumed This Period		0	31	0	0	0
Sub-Total, Construction Sources		***0***	***157***	***-2***	***0***	***0***
Cumulative Economic Changes (Operational) Defining Scenario						
Change in Visitor Arrivals Over Baseline		-298,997	-258,997	-234,997	-218,997	-178,997
Change in Visitor Units Over Baseline		-2,149	-1,861	-1,689	-1,574	-1,286
Change in Direct Casino Jobs Over Baseline		0	0	0	0	0
Change in Direct Military Jobs Over Baseline		0	0	0	0	0
Cumulative New Worker Demand This Island						
Operations Only		-4,674	-4,048	-3,625	-3,375	-2,749
(Construction Work Counts by Nature Are Not Cumulative)						
Total Population Level, This Island -- Operations Only		**41,693**	**40,334**	**40,457**	**40,477**	**40,509**
NMD		16,766	17,440	17,794	17,990	18,402
Non-NMD		15,455	15,253	15,469	15,634	16,234
Foreign		9,472	7,641	7,195	6,852	5,874
Total Population Level, This Island -- Including Presumed Construction		**41,693**	**40,763**	**40,457**	**40,477**	**40,509**
NMD		16,766	17,502	17,794	17,990	18,402
Non-NMD		15,455	15,620	15,469	15,634	16,234
Foreign		9,472	7,641	7,195	6,852	5,874

2.2.2 Tinian

Because the MVA's Horwath report did not include Visitor Arrival projections specific to Tinian and Rota, the Tinian and Rota (following Section 2.2.3) portions of the Model necessarily use possible new visitor-oriented developments – casino-hotels for Tinian; small luxury resorts for Rota – as the basis for estimating both Visitor Arrivals and related direct and indirect/induced jobs (with some of the latter "ripple effects" flowing to Saipan).

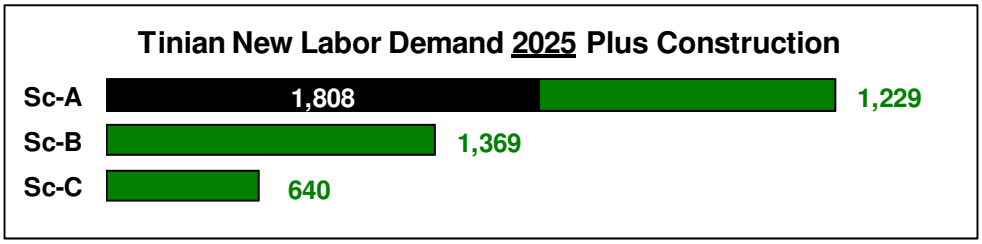
Table 15 to Table 17 show the various detailed economic-change and consequent worker demand assumptions on Tinian for the three scenarios. In reality, Scenario C (loss of CW-1 workers) would likely cost some jobs on Tinian and Rota as well, but given the current negligible on-island tourism sectors there, these effects would be far less pronounced than on Saipan and are therefore set to zero for these two islands.

Figure 11: Cumulative 2028 New Operational Labor Demand by Scenario, Tinian



Construction jobs could have a much greater impact (relative to more permanent operational jobs) on Tinian than other islands during this timeframe. This is illustrated below in Figure 12, which uses 2025 as the illustrative year. (This is because scenario assumptions assumed construction will have finished by 2028 for the various new projects assumed to be under construction in 2025 – variously by scenario including casino-hotel, joint military training facilities, and a divert airfield for the military.)

Figure 12: Estimated New Labor Demand with Construction, 2025, Tinian



In reviewing these estimates for all islands, it is important to recall that these are presumed *new* labor demands, above and beyond what exists at the present time (or in the 2016 baseline estimates derived from the CNMI's Household Income and Expenditure Survey).

Table 15: Summary of New Labor Demand and Population for Tinian, Scenario A

TINIAN

Scenario Name: Tinian Sc-A

Scenario Summary Description: New Hotels/Casinos by 2020 and 2028; Military Training and Divert Airfield

	Period: 1	Period: 2	Period: 3	Period: 4	Period: 5
End Yr:	2020	2025	2028	2030	2035
Scenario Economic Assumptions					
Est. Change in Visitor Arrivals Since Beginning of Period:	55,657	0	41,743	0	0
Change in Standard Hotel Units Since Beginning of Period (Assumed):	400	0	300	0	0
Change in Budget/Automated Units Since Beginning of Period:	0	0	0	0	0
Change in Direct Casino Jobs Since Beginning of Period:	1020	0	640	0	0
Change in Direct Military Jobs Since Beginning of Period:	0	0	95	0	0
Presumed On-Island Construction Worker Count at End of Period	0	1096	0	0	0
(Point-in-time assumption linked to major projects presumed to open in next year or two.)					
Total New Workers (Direct and Ripple Effects) Required, This Island					
Assumed Unemployment Rate	*3.50%*	*3.50%*	*3.50%*	*20.00%*	*20.00%*
Effects of Change in Visitor Units	498	0	373	0	0
Effecs of Change in Casino Jobs	1,247	0	782	0	0
Effects of Change in Military Jobs	0	0	130	0	0
Additions to Unemployment at Rate Assumed This Period	63	0	47	0	0
Sub-Total, Operational Sources	***1,808***	***0***	***1,332***	***0***	***0***
Effects of Change in Construction Worker Count (point-in-time estimate)	0	1,229	0	0	0
Additions to Unemployment at Rate Assumed This Period	0	45	0	0	0
Sub-Total, Construction Sources	***0***	***1,274***	***0***	***0***	***0***
Total Worker Ripple Effect Exported to Saipan *(Tinian and Rota Only)*	*566*	*0*	*405*	*0*	*0*
Cumulative Economic Changes (Operational) Defining Scenario					
Change in Visitor Arrivals Over Baseline	55,657	55,657	97,400	97,400	97,400
Change in Visitor Units Over Baseline	400	400	700	700	700
Change in Direct Casino Jobs Over Baseline	1,020	1,020	1,660	1,660	1,660
Change in Direct Military Jobs Over Baseline	0	0	95	95	95
Cumulative New Worker Demand This Island					
Operations Only	1,808	1,808	3,139	3,139	3,139
(Construction Work Counts by Nature Are Not Cumulative)					
Total Population Level, This Island -- Operations Only	**5,957**	**6,311**	**8,707**	**8,964**	**9,622**
NMD	1,263	1,165	1,229	1,243	1,279
Non-NMD	1,102	1,003	1,032	1,004	954
Foreign	3,592	4,143	6,446	6,717	7,389
Total Population Level, This Island -- Including Presumed Construction	**5,957**	**8,286**	**8,707**	**8,964**	**9,622**
NMD	1,263	1,342	1,229	1,243	1,279
Non-NMD	1,102	1,215	1,032	1,004	954
Foreign	3,592	5,729	6,446	6,717	7,389

Table 16: Summary of New Labor Demand and Population for Tinian, Scenario B

TINIAN

Scenario Name: Tinian Sc-B

Scenario Summary Description: One Casino/Hotel Developed ca. 2025-2028, Military Training and Divert Airfield

	Period: 1	Period: 2	Period: 3	Period: 4	Period: 5
End Yr:	2020	2025	2028	2030	2035
Scenario Economic Assumptions					
Est. Change in Visitor Arrivals Since Beginning of Period:	0	0	55,657	0	0
Change in Standard Hotel Units Since Beginning of Period (Assumed):	0	0	400	0	0
Change in Budget/Automated Units Since Beginning of Period:	0	0	0	0	0
Change in Direct Casino Jobs Since Beginning of Period:	0	0	1020	0	0
Change in Direct Military Jobs Since Beginning of Period:	0	0	95	0	0
Presumed On-Island Construction Worker Count at End of Period	0	1221	0	0	0
(Point-in-time assumption linked to major projects presumed to open in next year or two.)					
Total New Workers (Direct and Ripple Effects) Required, This Island					
Assumed Unemployment Rate	*7.00%*	*3.50%*	*3.50%*	*7.00%*	*7.00%*
Effects of Change in Visitor Units	0	0	498	0	0
Effecs of Change in Casino Jobs	0	0	1,247	0	0
Effects of Change in Military Jobs	0	0	130	0	0
Additions to Unemployment at Rate Assumed This Period	0	0	68	0	0
Sub-Total, Operational Sources	***0***	***0***	***1,942***	***0***	***0***
Effects of Change in Construction Worker Count (point-in-time estimate)	0	1,369	0	0	0
Additions to Unemployment at Rate Assumed This Period	0	50	0	0	0
Sub-Total, Construction Sources	***0***	***1,419***	***0***	***0***	***0***
Total Worker Ripple Effect Exported to Saipan *(Tinian and Rota Only)*	*0*	*0*	*601*	*0*	*0*
Cumulative Economic Changes (Operational) Defining Scenario					
Change in Visitor Arrivals Over Baseline	0	0	55,657	55,657	55,657
Change in Visitor Units Over Baseline	0	0	400	400	400
Change in Direct Casino Jobs Over Baseline	0	0	1,020	1,020	1,020
Change in Direct Military Jobs Over Baseline	0	0	95	95	95
Cumulative New Worker Demand This Island					
Operations Only	0	0	1,942	1,942	1,942
(Construction Work Counts by Nature Are Not Cumulative)					
Total Population Level, This Island -- Operations Only	**2,980**	**2,740**	**5,779**	**5,911**	**6,490**
NMD	1,154	1,041	1,097	1,104	1,136
Non-NMD	831	712	736	704	657
Foreign	994	986	3,946	4,103	4,698
Total Population Level, This Island -- Including Presumed Construction	**2,980**	**2,980**	**8,707**	**5,911**	**6,490**
NMD	1,154	1,210	1,097	1,104	1,136
Non-NMD	831	869	736	704	657
Foreign	994	2,732	3,946	4,103	4,698

Table 17: Summary of New Labor Demand and Population for Tinian, Scenario C

TINIAN

Scenario Name: Tinian Sc-C

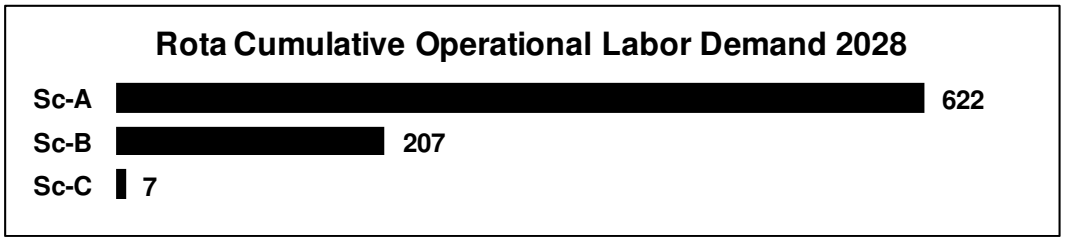
Scenario Summary Description: No Large Hotel/Casinos; Small Budget Hotel; Military Training, No Airfield

	Period: 1	Period: 2	Period: 3	Period: 4	Period: 5
End Yr:	2020	2025	2028	2030	2035
Scenario Economic Assumptions					
Est. Change in Visitor Arrivals Since Beginning of Period:	0	0	2,783	0	0
Change in Standard Hotel Units Since Beginning of Period (Assumed):	0	0	0	0	0
Change in Budget/Automated Units Since Beginning of Period:	0	0	20	0	0
Change in Direct Casino Jobs Since Beginning of Period:	0	0	0	0	0
Change in Direct Military Jobs Since Beginning of Period:	0	0	95	0	0
Presumed On-Island Construction Worker Count at End of Period	0	571	0	0	0
(Point-in-time assumption linked to major projects presumed to open in next year or two.)					
Total New Workers (Direct and Ripple Effects) Required, This Island					
Assumed Unemployment Rate	*20.00%*	*3.50%*	*7.00%*	*20.00%*	*20.00%*
Effects of Change in Visitor Units	0	0	7	0	0
Effecs of Change in Casino Jobs	0	0	0	0	0
Effects of Change in Military Jobs	0	0	130	0	0
Additions to Unemployment at Rate Assumed This Period	0	0	10	0	0
Sub-Total, Operational Sources	***0***	***0***	***147***	***0***	***0***
Effects of Change in Construction Worker Count (point-in-time estimate)	0	640	0	0	0
Additions to Unemployment at Rate Assumed This Period	0	23	0	0	0
Sub-Total, Construction Sources	***0***	***664***	***0***	***0***	***0***
Total Worker Ripple Effect Exported to Saipan *(Tinian and Rota Only)*	*0*	*0*	*39*	*0*	*0*
Cumulative Economic Changes (Operational) Defining Scenario					
Change in Visitor Arrivals Over Baseline	0	0	2,783	2,783	2,783
Change in Visitor Units Over Baseline	0	0	0	0	0
Change in Direct Casino Jobs Over Baseline	0	0	0	0	0
Change in Direct Military Jobs Over Baseline	0	0	95	95	95
Cumulative New Worker Demand This Island					
Operations Only	0	0	147	147	147
(Construction Work Counts by Nature Are Not Cumulative)					
Total Population Level, This Island -- Operations Only	**2,521**	**2,187**	**2,325**	**2,283**	**2,206**
NMD	1,177	1,068	1,141	1,151	1,185
Non-NMD	861	739	822	784	717
Foreign	483	380	362	347	304
Total Population Level, This Island -- Including Presumed Construction	**2,521**	**2,521**	**2,325**	**2,283**	**2,206**
NMD	1,177	1,556	1,141	1,151	1,185
Non-NMD	861	1,544	822	784	717
Foreign	483	380	362	347	304

2.2.3 Rota

Finally, Table 18 to Table 20 show similar Model outputs for the same measures, by scenario, as previously reported for Saipan and Tinian. The Rota and Tinian portions of the Model are parallel – though Rota development is assumed to be less extensive, lacking casino or military components – and each would result in some "ripple effects" of employment to Saipan, at least for Scenarios A and B.

Figure 13: Cumulative 2028 New Operational Labor Demand by Scenario, Rota



The Rota economic development scenarios are the simplest and most straightforward of those for the three different islands. They are limited to small upscale luxury resorts – likely although not necessarily with some sort of eco-tourism base – for Scenarios A and B, or a very small new budget hotel for the economically disastrous Scenario C.

It should be noted that on Rota, as other islands, the Model's estimated worker demand figures are not limited to on-site direct jobs at the resorts. As per assumptions set forth in the first part of this chapter, they also include direct jobs off-site (e.g., possible tour activities or additional business at existing retail/restaurant operations), ripple effects of expenditures through the economy, and an associated small component reflecting the reserve labor pool reflected in unemployment rates.

Table 18: Summary of New Labor Demand and Population for Rota, Scenario A

ROTA

Scenario Name: Rota Sc-A

Scenario Summary Description: Three Small Luxury Hotels by 2028

	Period: 1	Period: 2	Period: 3	Period: 4	Period: 5
End Yr:	2020	2025	2028	2030	2035
Scenario Economic Assumptions					
Est. Change in Visitor Arrivals Since Beginning of Period:	10,436	10,436	10,436	0	0
Change in Standard Hotel Units Since Beginning of Period (Assumed):	75	75	75	0	0
Change in Budget/Automated Units Since Beginning of Period:	0	0	0	0	0
Change in Direct Casino Jobs Since Beginning of Period:	0	0	0	0	0
Change in Direct Military Jobs Since Beginning of Period:	0	0	0	0	0
Presumed On-Island Construction Worker Count at End of Period	95	95	0	0	0
(Point-in-time assumption linked to major projects presumed to open in next year or two.)					
Total New Workers (Direct and Ripple Effects) Required, This Island					
Assumed Unemployment Rate	*3.50%*	*3.50%*	*3.50%*	*7.00%*	*7.00%*
Effects of Change in Visitor Units	200	200	200	0	0
Effecs of Change in Casino Jobs	0	0	0	0	0
Effects of Change in Military Jobs	0	0	0	0	0
Additions to Unemployment at Rate Assumed This Period	7	7	7	0	0
Sub-Total, Operational Sources	***207***	***207***	***207***	***0***	***0***
Effects of Change in Construction Worker Count (point-in-time estimate)	107	107	0	0	0
Additions to Unemployment at Rate Assumed This Period	4	4	0	0	0
Sub-Total, Construction Sources	***110***	***110***	***0***	***0***	***0***
Total Worker Ripple Effect Exported to Saipan (Rota and Rota Only)	*68*	*68*	*46*	*0*	*0*
Cumulative Economic Changes (Operational) Defining Scenario					
Change in Visitor Arrivals Over Baseline	10,436	20,871	31,307	31,307	31,307
Change in Visitor Units Over Baseline	75	150	225	225	225
Change in Direct Casino Jobs Over Baseline	0	0	0	0	0
Change in Direct Military Jobs Over Baseline	0	0	0	0	0
Cumulative New Worker Demand This Island					
Operations Only	207	414	622	622	622
(Constuction Work Counts by Nature Are Not Cumulative)					
Total Population Level, This Island -- Operations Only	**2,888**	**3,230**	**3,577**	**3,589**	**3,625**
NMD	1,464	1,567	1,624	1,641	1,676
Non-NMD	612	745	868	849	824
Foreign	812	918	1,084	1,098	1,126
Total Population Level, This Island -- Including Presumed Construction	**3,016**	**3,358**	**3,577**	**3,589**	**3,625**
NMD	1,464	1,567	1,624	1,641	1,676
Non-NMD	612	745	868	849	824
Foreign	940	1,046	1,084	1,098	1,126

Table 19: Summary of New Labor Demand and Population for Rota, Scenario B

ROTA

Scenario Name: Rota Sc-B

Scenario Summary Description: One Small Luxury Hotel Developed ca. 2025-28, No Other Economic Growth

	Period: 1	Period: 2	Period: 3	Period: 4	Period: 5
End Yr:	2020	2025	2028	2030	2035
Scenario Economic Assumptions					
Est. Change in Visitor Arrivals Since Beginning of Period:	0	10,436	0	0	0
Change in Standard Hotel Units Since Beginning of Period (Assumed):	0	75	0	0	0
Change in Budget/Automated Units Since Beginning of Period:	0	0	0	0	0
Change in Direct Casino Jobs Since Beginning of Period:	0	0	0	0	0
Change in Direct Military Jobs Since Beginning of Period:	0	0	0	0	0
Presumed On-Island Construction Worker Count at End of Period	95	0	0	0	0
(Point-in-time assumption linked to major projects presumed to open in next year or two.)					
Total New Workers (Direct and Ripple Effects) Required, This Island					
Assumed Unemployment Rate	*5.00%*	*3.50%*	*7.00%*	*7.00%*	*7.00%*
Effects of Change in Visitor Units	0	200	0	0	0
Effecs of Change in Casino Jobs	0	0	0	0	0
Effects of Change in Military Jobs	0	0	0	0	0
Additions to Unemployment at Rate Assumed This Period	0	7	0	0	0
Sub-Total, Operational Sources	***0***	***207***	***0***	***0***	***0***
Effects of Change in Construction Worker Count (point-in-time estimate)	107	0	0	0	0
Additions to Unemployment at Rate Assumed This Period	6	0	0	0	0
Sub-Total, Construction Sources	***112***	***0***	***0***	***0***	***0***
Total Worker Ripple Effect Exported to Saipan (Rota and Rota Only)	*22*	*46*	*0*	*0*	*0*
Cumulative Economic Changes (Operational) Defining Scenario					
Change in Visitor Arrivals Over Baseline	0	10,436	10,436	10,436	10,436
Change in Visitor Units Over Baseline	0	75	75	75	75
Change in Direct Casino Jobs Over Baseline	0	0	0	0	0
Change in Direct Military Jobs Over Baseline	0	0	0	0	0
Cumulative New Worker Demand This Island					
Operations Only	0	207	207	207	207
(Construction Work Counts by Nature Are Not Cumulative)					
Total Population Level, This Island -- Operations Only	**2,599**	**2,899**	**2,868**	**2,845**	**2,796**
NMD	1,356	1,446	1,476	1,496	1,533
Non-NMD	612	745	691	658	606
Foreign	631	708	700	691	657
Total Population Level, This Island -- Including Presumed Construction	**2,722**	**2,899**	**2,868**	**2,845**	**2,796**
NMD	1,459	1,446	1,476	1,496	1,533
Non-NMD	612	745	691	658	606
Foreign	651	708	700	691	657

Table 20: Summary of New Labor Demand and Population for Rota, Scenario C

ROTA

Scenario Name: Rota Sc-C

Scenario Summary Description: No Growth Except Small Budget Hotel by 2028

	Period: 1	Period: 2	Period: 3	Period: 4	Period: 5
End Yr:	2020	2025	2028	2030	2035
Scenario Economic Assumptions					
Est. Change in Visitor Arrivals Since Beginning of Period:	0	0	2,783	0	0
Change in Standard Hotel Units Since Beginning of Period (Assumed):	0	0	0	0	0
Change in Budget/Automated Units Since Beginning of Period:	0	0	20	0	0
Change in Direct Casino Jobs Since Beginning of Period:	0	0	0	0	0
Change in Direct Military Jobs Since Beginning of Period:	0	0	0	0	0
Presumed On-Island Construction Worker Count at End of Period	0	0	0	0	0
(Point-in-time assumption linked to major projects presumed to open in next year or two.)					
Total New Workers (Direct and Ripple Effects) Required, This Island					
Assumed Unemployment Rate	*7.00%*	*7.00%*	*5.00%*	*7.00%*	*7.00%*
Effects of Change in Visitor Units	0	0	7	0	0
Effecs of Change in Casino Jobs	0	0	0	0	0
Effects of Change in Military Jobs	0	0	0	0	0
Additions to Unemployment at Rate Assumed This Period	0	0	0	0	0
Sub-Total, Operational Sources	***0***	***0***	***7***	***0***	***0***
Effects of Change in Construction Worker Count (point-in-time estimate)	0	0	1	0	0
Additions to Unemployment at Rate Assumed This Period	0	0	0	0	0
Sub-Total, Construction Sources	***0***	***0***	***1***	***0***	***0***
Total Worker Ripple Effect Exported to Saipan (Rota and Rota Only)	*0*	*0*	*0*	*0*	*0*
Cumulative Economic Changes (Operational) Defining Scenario					
Change in Visitor Arrivals Over Baseline	0	0	2,783	2,783	2,783
Change in Visitor Units Over Baseline	0	0	0	0	0
Change in Direct Casino Jobs Over Baseline	0	0	0	0	0
Change in Direct Military Jobs Over Baseline	0	0	0	0	0
Cumulative New Worker Demand This Island					
Operations Only	0	0	7	7	7
(Construction Work Counts by Nature Are Not Cumulative)					
Total Population Level, This Island -- Operations Only	**2,357**	**2,261**	**2,284**	**2,302**	**2,293**
NMD	1,357	1,474	1,590	1,642	1,676
Non-NMD	612	461	387	368	368
Foreign	388	325	307	292	250
Total Population Level, This Island -- Including Presumed Construction	**2,357**	**2,261**	**2,287**	**2,302**	**2,293**
NMD	1,357	1,474	1,591	1,642	1,676
Non-NMD	612	461	390	368	368
Foreign	388	325	307	292	250

3. DETAILED POPULATION RESULTS

3.1 Introductory Comments

Preceding tables at the end of Chapter 2 included population estimates, but the discussion of focus there was on the labor demand portions of the table because this chapter expands and reports on the population figures, which comprise the primary outcomes from the Model for DPL planning purposes.

In this chapter, the detailed population forecasts are organized first by population component (Total, NMD, Non-NMD, and Foreign/Non-Resident), and each therein by geography (CNMI-wide, Saipan, Tinian, and Rota). Specific figures are in Table 21 through Table 50, each of which specifies results by age.

These age-specific numbers are actually the sum of numbers for both genders for the age-sex matrices that power the Model's estimates of natural increase in labor supply – which in turn indicate how much in- or out-migration is likely to occur given presumed labor demand during each time projection period. (See preceding Figure 9 on Model logic and structure for an appreciation of the importance of the age-sex structure of the population for Model workings.)

Each table also shows total adult (18+) figures and, at bottom, results when hypothetical population related to major construction "spikes" is included. (Again, construction timing is particularly uncertain, and the additional temporary population associated with construction could materialize at somewhat different times than the exact years presumed here, even if new tourism or military activities come online as envisioned for each scenario.)

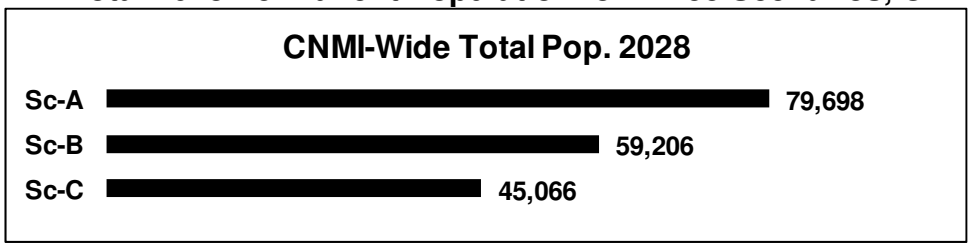
Sections 3.2 through 3.6 provide detailed and summary (2028) figures for Overall Population, NMD, *Eligible* NMD Applicants, Non-NMD, and Non-Resident (Foreign) components respectively. A final Section 3.7 summarizes additional implications found in the tables for construction-related population and for percentage breakdowns of the permanent population by component (NMD, etc.) by geography and economic development scenario.

3.2 Results: Overall Population Estimates

This page summarizes total 2028 estimates by island and CNMI-wide for population associated with change in labor demand for permanent (i.e., operational, not temporary construction) jobs. Thereafter, Table 21 through Table 23 show detailed CNMI-wide and Saipan total population results for each of the three scenarios, while subsequent Table 24 through Table 26 show the same for Tinian and Rota.

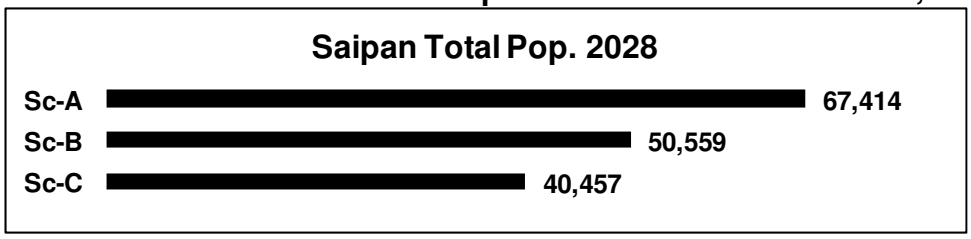
3.2.1 Total CNMI

Figure 14: Total 2028 Permanent Population for Three Scenarios, CNMI-Wide



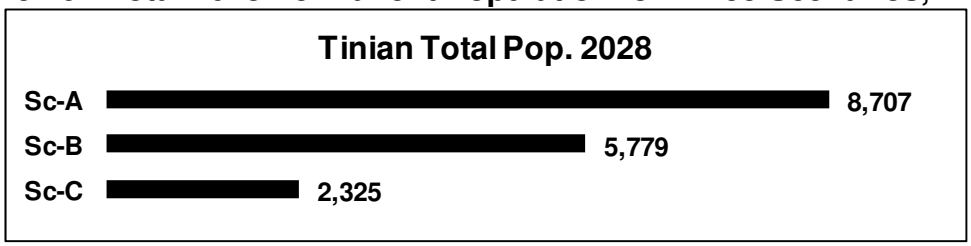
3.2.2 Saipan

Figure 15: Total 2028 Permanent Population for Three Scenarios, Saipan



3.2.3 Tinian

Figure 16: Total 2028 Permanent Population for Three Scenarios, Tinian



3.2.4 Rota

Figure 17: Total 2028 Permanent Population for Three Scenarios, Rota

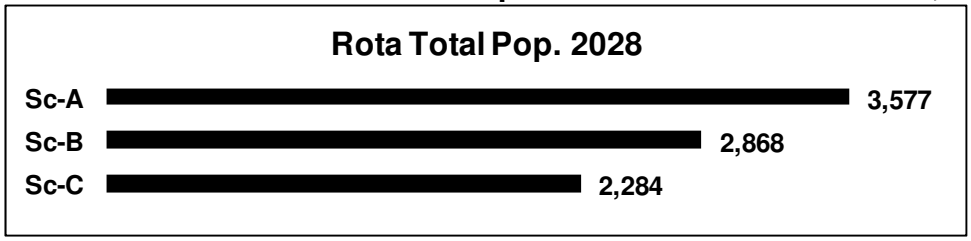


Table 21: Results, Total Population Estimates, Scenario A, CNMI-Wide and Saipan

RESULTS -- TOTAL POPULATION -- CNMI-WIDE

Island Scenarios: A A A

	2016	2020	2025	2028	2030	2035
All ages	55,662	63,964	70,009	**79,698**	82,160	88,059
(18+)	*37,905*	*46,896*	*51,527*	***59,812***	*61,154*	*64,554*
0-4	3,920	4,043	5,902	6,378	6,931	7,497
5-9	5,443	4,589	4,786	5,463	5,843	6,801
10-14	5,337	5,166	4,711	4,915	5,148	5,948
15-19	5,094	5,449	5,139	5,214	5,141	5,433
20-24	3,454	6,322	6,093	7,690	6,926	6,188
25-29	2,883	6,174	6,656	9,281	8,813	7,674
30-34	2,544	4,621	6,014	8,211	8,651	8,510
35-39	3,576	3,537	4,762	5,988	6,842	8,021
40-44	4,577	3,856	3,977	4,550	5,135	6,699
45-49	4,897	4,263	3,882	3,768	4,059	5,213
50-54	5,051	4,544	4,089	3,662	3,674	4,181
55-59	3,568	4,046	4,095	3,707	3,603	3,616
60-64	2,691	3,163	3,611	3,549	3,485	3,349
65-69	1,342	2,049	2,710	2,881	2,944	2,935
70-74	592	1,147	1,815	2,126	2,272	2,467
75+	692	996	1,765	2,314	2,690	3,529

Population Including Any Presumed Intensive Construction Activity

All ages	65,895	73,879	80,941	83,049	88,690
(18+)	*48,752*	*55,063*	*61,007*	*62,007*	*65,160*

RESULTS -- TOTAL POPULATION -- SAIPAN

Saipan Scenario: A

	2016	2020	2025	2028	2030	2035
All ages	49,866	55,118	60,468	**67,414**	69,607	74,812
(18+)	*34,111*	*39,983*	*44,235*	***50,133***	*51,462*	*54,757*
0-4	3,502	3,656	5,042	5,439	5,856	6,271
5-9	4,803	4,077	4,251	4,744	5,043	5,780
10-14	4,676	4,541	4,220	4,355	4,529	5,144
15-19	4,623	4,767	4,533	4,573	4,529	4,768
20-24	3,250	5,071	5,232	6,301	5,826	5,424
25-29	2,635	4,678	5,498	7,349	7,127	6,538
30-34	2,202	3,539	4,811	6,449	6,874	7,025
35-39	3,160	2,954	3,778	4,728	5,418	6,472
40-44	4,008	3,367	3,312	3,688	4,129	5,373
45-49	4,351	3,830	3,369	3,221	3,399	4,227
50-54	4,459	4,109	3,653	3,270	3,225	3,500
55-59	3,323	3,707	3,673	3,342	3,236	3,145
60-64	2,472	2,941	3,296	3,220	3,156	2,991
65-69	1,228	1,910	2,496	2,637	2,687	2,656
70-74	542	1,056	1,680	1,962	2,090	2,251
75+	631	915	1,624	2,137	2,485	3,247

Population Including Any Presumed Intensive Construction Activity

All ages	56,922	62,236	68,658	70,495	75,443
(18+)	*41,717*	*45,933*	*51,327*	*52,316*	*55,362*

Table 22: Results, Total Population Estimates, Scenario B, CNMI-Wide and Saipan

RESULTS -- TOTAL POPULATION -- CNMI-WIDE

Island Scenarios: B B B

	2016	2020	2025	2028	2030	2035
All ages	55,662	56,998	54,730	**59,206**	59,273	59,000
(18+)	*37,905*	*40,386*	*42,717*	***46,464***	*46,202*	*45,398*
0-4	3,920	3,943	3,636	3,999	4,139	4,064
5-9	5,443	4,497	3,102	3,476	3,641	3,915
10-14	5,337	5,072	2,986	3,137	3,258	3,604
15-19	5,094	5,168	3,816	3,550	3,387	3,367
20-24	3,454	4,333	4,609	5,035	4,401	3,525
25-29	2,883	3,355	4,070	5,528	5,208	4,213
30-34	2,544	2,761	3,448	4,666	4,874	4,654
35-39	3,576	2,985	3,035	3,591	3,937	4,439
40-44	4,577	3,749	3,160	3,209	3,335	3,882
45-49	4,897	4,444	3,776	3,410	3,296	3,420
50-54	5,051	4,802	4,261	3,841	3,627	3,354
55-59	3,568	4,292	4,388	4,094	3,899	3,466
60-64	2,691	3,306	3,865	3,883	3,824	3,525
65-69	1,342	2,127	2,873	3,120	3,200	3,170
70-74	592	1,157	1,895	2,257	2,431	2,665
75+	692	1,006	1,812	2,411	2,815	3,738
Population Including Any Presumed Intensive Construction Activity						
All ages	57,818	57,635	59,206	59,273	59,000	
(18+)	*41,063*	*44,664*	*46,464*	*46,202*	*45,398*	

RESULTS -- TOTAL POPULATION -- SAIPAN

Saipan Scenario: B

	2016	2020	2025	2028	2030	2035
All ages	49,866	51,420	49,091	**50,559**	50,517	49,714
(18+)	*34,111*	*36,510*	*38,424*	***39,237***	*39,005*	*38,250*
0-4	3,502	3,606	3,344	3,629	3,582	3,165
5-9	4,803	4,031	2,777	3,149	3,292	3,330
10-14	4,676	4,497	2,572	2,758	2,902	3,190
15-19	4,623	4,627	3,289	2,979	2,893	2,964
20-24	3,250	3,993	4,088	3,645	3,329	2,893
25-29	2,635	3,126	3,665	3,814	3,661	3,168
30-34	2,202	2,512	3,183	3,514	3,555	3,377
35-39	3,160	2,656	2,769	3,090	3,200	3,321
40-44	4,008	3,318	2,854	2,908	2,950	3,126
45-49	4,351	3,943	3,368	3,138	3,020	2,965
50-54	4,459	4,258	3,795	3,526	3,337	3,039
55-59	3,323	3,873	3,893	3,736	3,570	3,179
60-64	2,472	3,032	3,481	3,542	3,492	3,233
65-69	1,228	1,961	2,613	2,856	2,927	2,901
70-74	542	1,065	1,737	2,062	2,224	2,438
75+	631	924	1,662	2,215	2,584	3,425
Population Including Any Presumed Intensive Construction Activity						
All ages	52,117	49,925	50,559	50,517	49,714	
(18+)	*37,130*	*38,560*	*39,237*	*39,005*	*38,250*	

Table 23: Results, Total Population Estimates, Scenario C, CNMI-Wide and Saipan

RESULTS -- TOTAL POPULATION -- CNMI-WIDE

Island Scenarios: C C C

	2016	2020	2025	2028	2030	2035
All ages	55,662	46,571	44,782	**45,066**	45,062	45,008
(18+)	*37,905*	*31,768*	*31,737*	***32,474***	*32,692*	*32,953*
0-4	3,920	3,230	3,253	3,368	3,395	3,392
5-9	5,443	3,980	3,281	3,238	3,246	3,287
10-14	5,337	4,727	3,874	3,554	3,425	3,295
15-19	5,094	4,778	4,396	4,052	3,840	3,470
20-24	3,454	3,809	4,171	4,163	4,044	3,672
25-29	2,883	2,799	3,450	3,756	3,831	3,765
30-34	2,544	1,916	2,469	2,937	3,171	3,497
35-39	3,576	1,677	1,779	2,130	2,379	2,943
40-44	4,577	2,296	1,625	1,705	1,835	2,332
45-49	4,897	3,255	2,053	1,801	1,745	1,896
50-54	5,051	3,992	2,837	2,350	2,105	1,838
55-59	3,568	3,635	3,268	2,868	2,595	2,055
60-64	2,691	2,829	3,036	2,950	2,804	2,325
65-69	1,342	1,805	2,295	2,455	2,470	2,276
70-74	592	990	1,531	1,798	1,921	2,019
75+	692	854	1,464	1,939	2,256	2,949

Population Including Any Presumed Intensive Construction Activity

All ages	46,571	46,503	45,069	45,062	45,008
(18+)	*31,768*	*32,792*	*32,475*	*32,692*	*32,953*

RESULTS -- TOTAL POPULATION -- SAIPAN

Saipan Scenario: C

	2016	2020	2025	2028	2030	2035
All ages	49,866	41,693	40,334	**40,457**	40,477	40,509
(18+)	*34,111*	*28,518*	*28,473*	***28,999***	*29,209*	*29,499*
0-4	3,502	2,930	3,017	3,086	3,101	3,087
5-9	4,803	3,537	3,009	2,972	2,978	3,008
10-14	4,676	4,161	3,494	3,227	3,119	3,021
15-19	4,623	4,246	3,901	3,621	3,449	3,157
20-24	3,250	3,507	3,752	3,706	3,611	3,305
25-29	2,635	2,617	3,180	3,389	3,444	3,379
30-34	2,202	1,732	2,319	2,698	2,893	3,159
35-39	3,160	1,429	1,609	1,947	2,179	2,676
40-44	4,008	1,968	1,429	1,519	1,653	2,123
45-49	4,351	2,843	1,762	1,557	1,530	1,703
50-54	4,459	3,509	2,472	2,033	1,823	1,620
55-59	3,323	3,266	2,858	2,500	2,254	1,790
60-64	2,472	2,590	2,710	2,604	2,461	2,028
65-69	1,228	1,665	2,080	2,197	2,198	2,000
70-74	542	910	1,400	1,629	1,730	1,793
75+	631	783	1,340	1,769	2,054	2,660

Population Including Any Presumed Intensive Construction Activity

All ages	41,693	40,763	40,457	40,477	40,509
(18+)	*28,518*	*28,798*	*28,999*	*29,209*	*29,499*

Table 24: Results, Total Population Estimates, Scenario A, Tinian and Rota

RESULTS -- TOTAL POPULATION -- TINIAN

Tinian Scenario: **A**

	2016	2020	2025	2028	2030	2035
All ages	3,158	5,957	6,311	**8,707**	8,964	9,622
(18+)	*2,038*	*4,851*	*4,890*	***6,989***	*7,018*	*7,143*
0-4	185	208	634	664	775	913
5-9	344	267	320	489	556	743
10-14	420	362	254	331	391	561
15-19	285	449	354	391	372	435
20-24	101	1,035	575	1,057	807	520
25-29	118	1,288	863	1,553	1,337	852
30-34	193	895	949	1,430	1,441	1,179
35-39	202	397	779	1,009	1,153	1,255
40-44	319	270	466	652	788	1,073
45-49	295	199	306	351	465	772
50-54	295	177	211	188	253	486
55-59	143	143	208	162	171	286
60-64	126	101	144	149	148	183
65-69	59	64	101	112	117	130
70-74	41	52	67	77	84	99
75+	33	48	79	93	104	135

Population Including Any Presumed Intensive Construction Activity

All ages	5,957	8,286	8,707	8,964	9,622
(18+)	*4,851*	*6,606*	*6,989*	*7,018*	*7,143*

RESULTS -- TOTAL POPULATION -- ROTA

Rota Scenario: **A**

	2016	2020	2025	2028	2030	2035
All ages	2,637	2,888	3,230	**3,577**	3,589	3,625
(18+)	*1,756*	*2,063*	*2,401*	***2,690***	*2,673*	*2,654*
0-4	233	178	226	275	300	313
5-9	297	245	215	231	243	278
10-14	241	262	238	230	229	243
15-19	186	233	251	250	240	230
20-24	102	216	286	332	293	244
25-29	130	208	295	378	349	284
30-34	149	186	254	332	336	306
35-39	214	186	206	250	271	293
40-44	250	218	199	209	219	253
45-49	251	235	208	196	195	214
50-54	297	258	225	204	197	194
55-59	102	195	214	203	196	185
60-64	93	122	171	180	181	175
65-69	56	74	113	132	140	149
70-74	9	39	69	88	98	117
75+	28	33	61	85	102	147

Population Including Any Presumed Intensive Construction Activity

All ages	3,016	3,358	3,577	3,589	3,625
(18+)	*2,185*	*2,524*	*2,690*	*2,673*	*2,654*

Table 25: Results, Total Population Estimates, Scenario B, Tinian and Rota

RESULTS -- TOTAL POPULATION -- TINIAN

Tinian Scenario: **B**

	2016	2020	2025	2028	2030	2035
All ages	3,158	2,980	2,740	**5,779**	5,911	6,490
(18+)	*2,038*	*2,043*	*2,129*	***5,096***	*5,086*	*5,078*
0-4	185	170	109	153	335	683
5-9	344	231	131	142	157	382
10-14	420	336	193	178	162	222
15-19	285	334	296	352	285	209
20-24	101	193	268	1,160	853	432
25-29	118	108	165	1,483	1,323	839
30-34	193	122	77	954	1,119	1,081
35-39	202	163	110	342	573	944
40-44	319	222	134	147	235	602
45-49	295	265	212	101	119	309
50-54	295	281	242	116	108	161
55-59	143	216	276	151	133	119
60-64	126	148	208	156	146	120
65-69	59	88	143	129	129	117
70-74	41	54	88	106	107	106
75+	33	49	88	110	128	163
Population Including Any Presumed Intensive Construction Activity						
All ages		2,980	4,811	5,779	5,911	6,490
(18+)		*2,043*	*3,941*	*5,096*	*5,086*	*5,078*

RESULTS -- TOTAL POPULATION -- ROTA

Rota Scenario: **B**

	2016	2020	2025	2028	2030	2035
All ages	2,637	2,599	2,899	**2,868**	2,845	2,796
(18+)	*1,756*	*1,833*	*2,164*	***2,132***	*2,112*	*2,070*
0-4	233	167	182	217	221	216
5-9	297	235	194	186	192	203
10-14	241	239	221	201	194	192
15-19	186	208	231	218	209	193
20-24	102	147	253	230	220	200
25-29	130	122	239	231	223	206
30-34	149	127	188	198	200	196
35-39	214	166	155	159	165	175
40-44	250	209	171	154	150	154
45-49	251	236	196	171	158	145
50-54	297	264	223	198	183	155
55-59	102	203	218	207	196	168
60-64	93	126	176	185	185	172
65-69	56	77	117	136	144	151
70-74	9	39	71	89	101	120
75+	28	34	62	86	103	150
Population Including Any Presumed Intensive Construction Activity						
All ages		2,722	2,899	2,868	2,845	2,796
(18+)		*1,891*	*2,164*	*2,132*	*2,112*	*2,070*

Table 26: Results, Total Population Estimates, Scenario C, Tinian and Rota

RESULTS -- TOTAL POPULATION -- TINIAN

Tinian Scenario: **C**

	2016	2020	2025	2028	2030	2035
All ages	3,158	2,521	2,187	**2,325**	2,283	2,206
(18+)	*2,038*	*1,664*	*1,669*	***1,754***	*1,750*	*1,727*
0-4	185	144	83	126	129	132
5-9	344	212	105	126	122	122
10-14	420	312	168	174	154	129
15-19	285	314	271	242	213	161
20-24	101	177	245	252	239	198
25-29	118	93	144	199	211	210
30-34	193	80	49	106	136	178
35-39	202	111	68	70	84	132
40-44	319	153	76	71	69	92
45-49	295	208	142	107	89	78
50-54	295	241	178	151	130	91
55-59	143	185	226	193	171	122
60-64	126	126	170	184	178	147
65-69	59	74	117	137	144	142
70-74	41	47	72	91	102	118
75+	33	43	73	96	112	156
Population Including Any Presumed Intensive Construction Activity						
All ages		2,521	3,479	2,325	2,283	2,206
(18+)		*1,664*	*2,399*	*1,754*	*1,750*	*1,727*

RESULTS -- TOTAL POPULATION -- ROTA

Rota Scenario: **C**

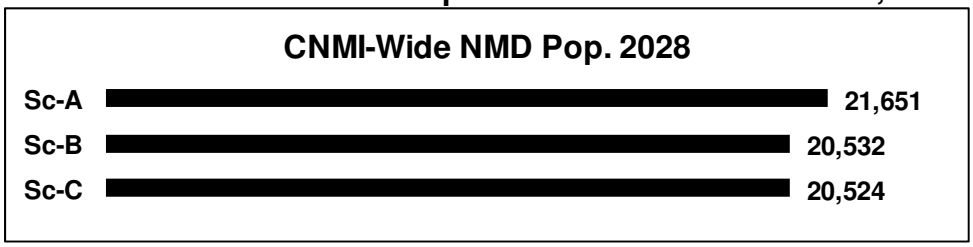
	2016	2020	2025	2028	2030	2035
All ages	2,637	2,357	2,261	**2,284**	2,302	2,293
(18+)	*1,756*	*1,586*	*1,595*	***1,722***	*1,733*	*1,727*
0-4	233	156	152	156	166	172
5-9	297	231	167	140	145	157
10-14	241	253	212	153	151	145
15-19	186	218	224	189	178	152
20-24	102	126	174	204	194	169
25-29	130	89	126	168	176	176
30-34	149	103	101	132	142	160
35-39	214	136	101	113	116	135
40-44	250	174	120	115	114	117
45-49	251	204	148	136	126	115
50-54	297	242	188	166	152	127
55-59	102	184	184	175	170	143
60-64	93	113	156	162	164	150
65-69	56	65	98	121	129	135
70-74	9	33	59	78	89	107
75+	28	29	51	74	90	133
Population Including Any Presumed Intensive Construction Activity						
All ages		2,357	2,261	2,287	2,302	2,293
(18+)		*1,586*	*1,595*	*1,722*	*1,733*	*1,727*

3.3 Results: Overall NMD Population Estimates

NMD numbers vary little over scenarios, and on Tinian/Rota are actually a little higher for Scenario C than Scenario B. This is primarily because of the finding from the initial historical research phase that ***NMD population is, on a net basis, not very responsive to economic conditions***. Change in historical NMD figures appears to come largely from natural increase, and the NMD population has shrunk over time.

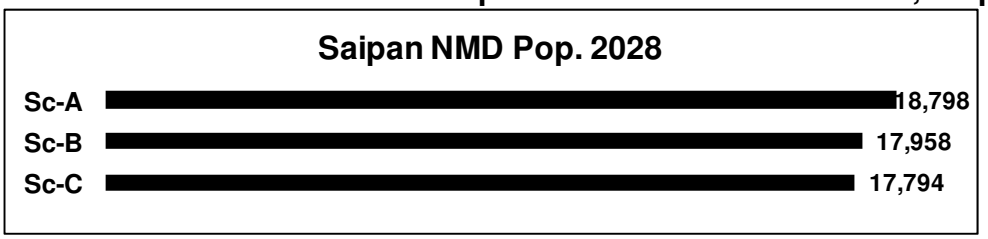
3.3.1 Total CNMI

Figure 18: Estimated 2028 NMD Population for Three Scenarios, CNMI-Wide



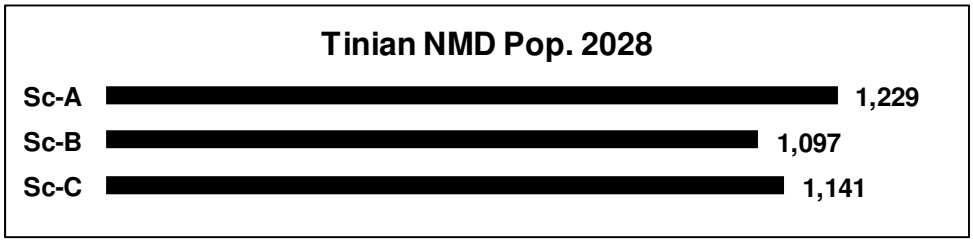
3.3.2 Saipan

Figure 19: Estimated 2028 NMD Population for Three Scenarios, Saipan



3.3.3 Tinian

Figure 20: Estimated 2028 NMD Population for Three Scenarios, Tinian



3.3.4 Rota

Figure 21: Estimated 2028 NMD Population for Three Scenarios, Rota

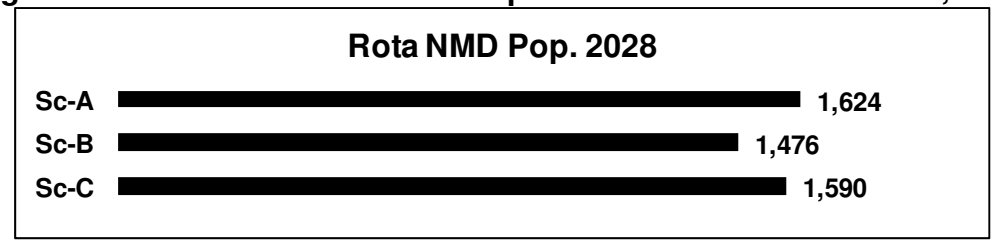


Table 27: Results, NMD Population Estimates, Scenario A, CNMI-Wide and Saipan

RESULTS -- NMD POPULATION -- CNMI-WIDE

Island Scenarios: A A A

	2016	2020	2025	2028	2030	2035
All ages	18,867	19,914	20,967	**21,651**	22,022	22,830
(18+)	*12,276*	*13,271*	*14,472*	***15,105***	*15,469*	*16,334*
0-4	1,779	1,787	1,770	1,829	1,830	1,776
5-9	2,139	1,934	1,795	1,802	1,815	1,817
10-14	1,603	1,865	1,827	1,818	1,816	1,818
15-19	1,784	1,762	1,839	1,828	1,821	1,808
20-24	1,553	1,657	1,793	1,803	1,797	1,791
25-29	1,369	1,505	1,656	1,720	1,739	1,769
30-34	1,124	1,309	1,460	1,570	1,623	1,712
35-39	1,196	1,201	1,319	1,407	1,468	1,599
40-44	1,066	1,139	1,185	1,268	1,323	1,464
45-49	1,109	1,099	1,129	1,166	1,203	1,320
50-54	1,283	1,164	1,102	1,114	1,130	1,204
55-59	845	1,036	1,091	1,070	1,068	1,094
60-64	972	922	972	990	992	1,000
65-69	468	684	788	821	834	853
70-74	297	431	581	639	667	710
75+	280	418	660	806	897	1,094

Population Including Any Presumed Intensive Construction Activity

All ages	19,914	21,144	21,651	22,022	22,830
(18+)	*13,271*	*14,458*	*15,105*	*15,469*	*16,334*

RESULTS -- NMD POPULATION -- SAIPAN

Saipan Scenario: A

	2016	2020	2025	2028	2030	2035
All ages	16,288	17,186	18,234	**18,798**	19,138	19,876
(18+)	*10,709*	*11,507*	*12,464*	***13,005***	*13,350*	*14,152*
0-4	1,607	1,578	1,603	1,600	1,590	1,545
5-9	1,788	1,677	1,623	1,619	1,615	1,593
10-14	1,263	1,547	1,617	1,625	1,626	1,620
15-19	1,535	1,463	1,546	1,580	1,595	1,609
20-24	1,481	1,467	1,482	1,511	1,533	1,568
25-29	1,209	1,365	1,429	1,455	1,474	1,521
30-34	957	1,156	1,322	1,380	1,408	1,470
35-39	957	1,008	1,164	1,251	1,298	1,389
40-44	867	929	1,033	1,115	1,169	1,289
45-49	976	923	950	1,001	1,044	1,160
50-54	1,048	978	936	945	964	1,046
55-59	759	884	899	895	899	935
60-64	885	816	830	832	833	845
65-69	433	620	687	704	711	721
70-74	271	394	519	561	579	605
75+	253	381	595	722	800	958

Population Including Any Presumed Intensive Construction Activity

All ages	17,186	18,234	18,798	19,138	19,876
(18+)	*11,507*	*12,464*	*13,005*	*13,350*	*14,152*

Table 28: Results, NMD Population Estimates, Scenario B, CNMI-Wide and Saipan

RESULTS -- NMD POPULATION -- CNMI-WIDE

Island Scenarios:	B	B	B

	2016	2020	2025	2028	2030	2035
All ages	18,867	19,620	19,949	**20,532**	20,673	20,833
(18+)	*12,276*	*13,131*	*13,921*	***14,440***	*14,587*	*14,899*
0-4	1,779	1,741	1,685	1,726	1,716	1,605
5-9	2,139	1,893	1,703	1,702	1,704	1,668
10-14	1,603	1,814	1,635	1,667	1,677	1,679
15-19	1,784	1,737	1,675	1,660	1,649	1,636
20-24	1,553	1,636	1,666	1,658	1,599	1,497
25-29	1,369	1,487	1,580	1,615	1,582	1,493
30-34	1,124	1,277	1,381	1,481	1,505	1,502
35-39	1,196	1,184	1,262	1,336	1,377	1,443
40-44	1,066	1,112	1,112	1,195	1,244	1,350
45-49	1,109	1,085	1,079	1,104	1,129	1,217
50-54	1,283	1,154	1,081	1,073	1,079	1,131
55-59	845	1,046	1,086	1,058	1,044	1,043
60-64	972	924	972	986	983	972
65-69	468	683	790	821	827	823
70-74	297	431	582	640	665	698
75+	280	418	660	807	894	1,077

Population Including Any Presumed Intensive Construction Activity

All ages	19,771	20,245	20,532	20,673	20,833
(18+)	*13,183*	*13,976*	*14,440*	*14,587*	*14,899*

RESULTS -- NMD POPULATION -- SAIPAN

Saipan Scenario:	B

	2016	2020	2025	2028	2030	2035
All ages	16,288	17,110	17,462	**17,958**	18,073	18,164
(18+)	*10,709*	*11,513*	*12,081*	***12,534***	*12,664*	*12,920*
0-4	1,607	1,547	1,546	1,526	1,505	1,399
5-9	1,788	1,650	1,549	1,544	1,530	1,470
10-14	1,263	1,522	1,443	1,493	1,507	1,502
15-19	1,535	1,463	1,405	1,433	1,444	1,456
20-24	1,481	1,488	1,387	1,398	1,360	1,294
25-29	1,209	1,376	1,387	1,386	1,349	1,270
30-34	957	1,145	1,271	1,324	1,324	1,289
35-39	957	1,003	1,128	1,206	1,236	1,263
40-44	867	913	974	1,061	1,111	1,201
45-49	976	918	911	953	986	1,078
50-54	1,048	970	921	914	925	988
55-59	759	895	898	888	881	894
60-64	885	819	832	832	828	824
65-69	433	623	691	708	706	695
70-74	271	396	521	564	580	595
75+	253	383	599	727	800	945

Population Including Any Presumed Intensive Construction Activity

All ages	17,158	17,589	17,958	18,073	18,164
(18+)	*11,509*	*12,150*	*12,534*	*12,664*	*12,920*

Table 29: Results, NMD Population Estimates, Scenario C, CNMI-Wide and Saipan

RESULTS -- NMD POPULATION -- CNMI-WIDE

Island Scenarios: C C C

	2016	2020	2025	2028	2030	2035
All ages	18,867	19,300	19,982	**20,524**	20,783	21,262
(18+)	*12,276*	*12,765*	*13,736*	***14,310***	*14,599*	*15,231*
0-4	1,779	1,756	1,661	1,700	1,697	1,638
5-9	2,139	1,902	1,727	1,701	1,699	1,674
10-14	1,603	1,842	1,784	1,749	1,734	1,694
15-19	1,784	1,723	1,790	1,774	1,758	1,709
20-24	1,553	1,505	1,643	1,689	1,685	1,658
25-29	1,369	1,383	1,492	1,568	1,587	1,616
30-34	1,124	1,240	1,331	1,423	1,465	1,544
35-39	1,196	1,159	1,232	1,295	1,337	1,438
40-44	1,066	1,118	1,134	1,191	1,229	1,327
45-49	1,109	1,074	1,089	1,114	1,137	1,214
50-54	1,283	1,157	1,081	1,081	1,088	1,133
55-59	845	1,031	1,073	1,049	1,046	1,053
60-64	972	919	969	978	980	976
65-69	468	663	769	806	819	832
70-74	297	423	569	626	653	695
75+	280	405	637	782	870	1,063

Population Including Any Presumed Intensive Construction Activity

All ages	19,300	20,532	20,525	20,783	21,262
(18+)	*12,765*	*13,750*	*14,310*	*14,599*	*15,231*

RESULTS -- NMD POPULATION -- SAIPAN

Saipan Scenario: C

	2016	2020	2025	2028	2030	2035
All ages	16,288	16,766	17,440	**17,794**	17,990	18,402
(18+)	*10,709*	*11,162*	*11,880*	***12,296***	*12,545*	*13,116*
0-4	1,607	1,557	1,511	1,485	1,468	1,414
5-9	1,788	1,655	1,565	1,530	1,509	1,459
10-14	1,263	1,531	1,580	1,564	1,548	1,504
15-19	1,535	1,436	1,507	1,531	1,534	1,515
20-24	1,481	1,364	1,367	1,404	1,423	1,438
25-29	1,209	1,282	1,300	1,316	1,330	1,372
30-34	957	1,108	1,217	1,248	1,263	1,311
35-39	957	979	1,094	1,151	1,180	1,240
40-44	867	914	990	1,047	1,084	1,163
45-49	976	905	918	954	984	1,063
50-54	1,048	973	918	916	926	980
55-59	759	881	890	881	879	898
60-64	885	815	825	825	822	823
65-69	433	606	673	691	697	701
70-74	271	389	509	549	567	592
75+	253	371	577	701	776	930

Population Including Any Presumed Intensive Construction Activity

All ages	16,766	17,502	17,794	17,990	18,402
(18+)	*11,162*	*11,935*	*12,296*	*12,545*	*13,116*

Table 30: Results, NMD Population Estimates, Scenario A, Tinian and Rota

RESULTS -- NMD POPULATION -- TINIAN

Tinian Scenario: **A**

	2016	2020	2025	2028	2030	2035
All ages	1,184	1,263	1,165	**1,229**	1,243	1,279
(18+)	*665*	*775*	*918*	***958***	*960*	*974*
0-4	51	93	34	92	103	99
5-9	193	121	44	51	66	91
10-14	210	177	75	61	59	72
15-19	110	162	156	113	93	72
20-24	17	87	186	162	138	98
25-29	67	56	122	149	148	126
30-34	84	68	46	90	110	129
35-39	118	93	64	64	74	106
40-44	59	88	48	55	59	79
45-49	59	68	69	60	58	64
50-54	76	67	53	59	58	58
55-59	50	60	89	71	65	58
60-64	51	52	61	68	67	60
65-69	17	34	49	53	55	55
70-74	17	20	33	39	41	46
75+	8	17	35	44	50	66
Population Including Any Presumed Intensive Construction Activity						
All ages		1,263	1,342	1,229	1,243	1,279
(18+)		*775*	*903*	*958*	*960*	*974*

RESULTS -- NMD POPULATION -- ROTA

Rota Scenario: **A**

	2016	2020	2025	2028	2030	2035
All ages	1,395	1,464	1,567	**1,624**	1,641	1,676
(18+)	*902*	*989*	*1,090*	***1,142***	*1,159*	*1,208*
0-4	121	116	133	137	138	131
5-9	158	135	128	131	133	133
10-14	130	141	134	132	132	127
15-19	140	138	137	135	133	127
20-24	56	103	125	130	127	126
25-29	93	85	105	116	117	122
30-34	84	85	92	101	105	113
35-39	121	100	91	93	95	103
40-44	140	122	104	98	96	96
45-49	74	108	110	105	101	96
50-54	158	119	113	110	107	100
55-59	37	92	104	105	105	101
60-64	37	54	81	89	93	95
65-69	19	30	52	63	69	78
70-74	9	16	29	40	46	59
75+	19	20	29	39	47	70
Population Including Any Presumed Intensive Construction Activity						
All ages		1,464	1,567	1,624	1,641	1,676
(18+)		*989*	*1,090*	*1,142*	*1,159*	*1,208*

Table 31: Results, NMD Population Estimates, Scenario B, Tinian and Rota

RESULTS -- NMD POPULATION -- TINIAN

Tinian Scenario: **B**

	2016	2020	2025	2028	2030	2035
All ages	1,184	1,154	1,041	**1,097**	1,104	1,136
(18+)	*665*	*684*	*824*	***863***	*861*	*872*
0-4	51	88	18	76	87	88
5-9	193	116	37	39	53	77
10-14	210	174	73	55	50	60
15-19	110	155	151	109	87	64
20-24	17	60	171	152	129	90
25-29	67	34	101	132	133	116
30-34	84	56	28	71	92	115
35-39	118	86	51	48	57	90
40-44	59	84	42	45	46	64
45-49	59	64	64	54	50	52
50-54	76	66	51	55	54	50
55-59	50	59	86	68	62	53
60-64	51	51	60	66	64	56
65-69	17	30	47	51	53	52
70-74	17	19	31	37	40	44
75+	8	14	31	41	47	62
Population Including Any Presumed Intensive Construction Activity						
All ages		1,154	1,210	1,097	1,104	1,136
(18+)		*684*	*810*	*863*	*861*	*872*

RESULTS -- NMD POPULATION -- ROTA

Rota Scenario: **B**

	2016	2020	2025	2028	2030	2035
All ages	1,395	1,356	1,446	**1,476**	1,496	1,533
(18+)	*902*	*934*	*1,016*	***1,043***	*1,062*	*1,108*
0-4	121	106	121	124	124	118
5-9	158	126	117	119	121	120
10-14	130	118	120	119	119	117
15-19	140	119	120	118	118	116
20-24	56	89	108	109	110	113
25-29	93	77	92	97	100	107
30-34	84	77	82	86	90	98
35-39	121	95	83	82	84	90
40-44	140	115	97	89	87	85
45-49	74	103	104	98	94	87
50-54	158	118	108	104	101	92
55-59	37	92	102	102	101	95
60-64	37	54	81	88	91	91
65-69	19	30	52	62	68	76
70-74	9	16	30	39	46	58
75+	19	20	30	39	47	70
Population Including Any Presumed Intensive Construction Activity						
All ages		1,459	1,446	1,476	1,496	1,533
(18+)		*990*	*1,016*	*1,043*	*1,062*	*1,108*

Table 32: Results, NMD Population Estimates, Scenario C, Tinian and Rota

RESULTS -- NMD POPULATION -- TINIAN

Tinian Scenario: **C**

	2016	2020	2025	2028	2030	2035
All ages	1,184	1,177	1,068	**1,141**	1,151	1,185
(18+)	*665*	*704*	*844*	***893***	*895*	*907*
0-4	51	88	22	79	92	93
5-9	193	117	38	42	56	81
10-14	210	174	73	59	54	63
15-19	110	156	151	113	91	67
20-24	17	66	174	157	134	94
25-29	67	39	106	137	139	121
30-34	84	58	32	76	97	120
35-39	118	88	54	52	62	95
40-44	59	85	43	48	50	69
45-49	59	65	65	56	52	55
50-54	76	66	51	55	55	52
55-59	50	59	86	69	63	55
60-64	51	51	60	67	65	57
65-69	17	31	48	52	54	53
70-74	17	19	32	37	40	45
75+	8	15	32	42	48	63
Population Including Any Presumed Intensive Construction Activity						
All ages		1,177	1,556	1,141	1,151	1,185
(18+)		*704*	*804*	*893*	*895*	*907*

RESULTS -- NMD POPULATION -- ROTA

Rota Scenario: **C**

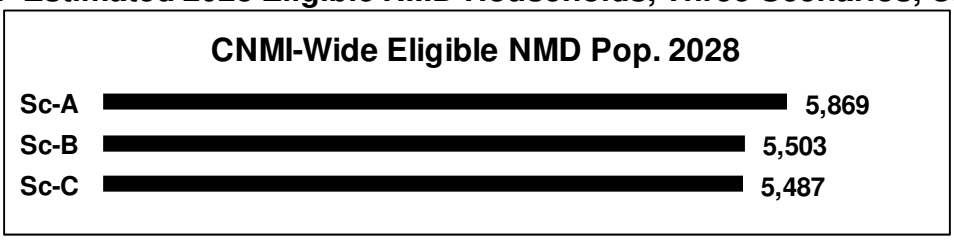
	2016	2020	2025	2028	2030	2035
All ages	1,395	1,357	1,474	**1,590**	1,642	1,676
(18+)	*902*	*900*	*1,012*	***1,120***	*1,159*	*1,208*
0-4	121	111	129	135	138	131
5-9	158	130	124	129	133	133
10-14	130	138	131	127	132	127
15-19	140	131	131	131	133	127
20-24	56	75	102	127	127	126
25-29	93	63	87	114	117	122
30-34	84	73	82	99	105	113
35-39	121	92	85	92	95	103
40-44	140	119	101	96	96	96
45-49	74	104	106	104	101	96
50-54	158	118	112	109	107	100
55-59	37	91	97	99	105	101
60-64	37	54	83	87	93	95
65-69	19	26	48	63	69	78
70-74	9	15	28	40	46	59
75+	19	19	27	39	47	70
Population Including Any Presumed Intensive Construction Activity						
All ages		1,357	1,474	1,591	1,642	1,676
(18+)		*900*	*1,012*	*1,121*	*1,159*	*1,208*

3.4 Results: Eligible NMD Household Head Estimates

Based on the eligibility criteria and related assumptions in Section 2.1.3, results below indicate roughly 38% of NMD adults in 2028 (roughly 43% on Tinian) would qualify for DPL homestead awards. Note, however, (1) these numbers do not subtract awards already given, as per Section 1.3; and (2) effects of inflation may erode numbers of eligible households over time unless eligibility criteria are legally changed to be inflation-adjusted. (We do not hazard estimates of how inflation may otherwise affect eligibility estimates because the CNMI has not produced a Consumer Price Index for years past 2013, and that analysis suggested tremendous volatility in prices was occurring.)

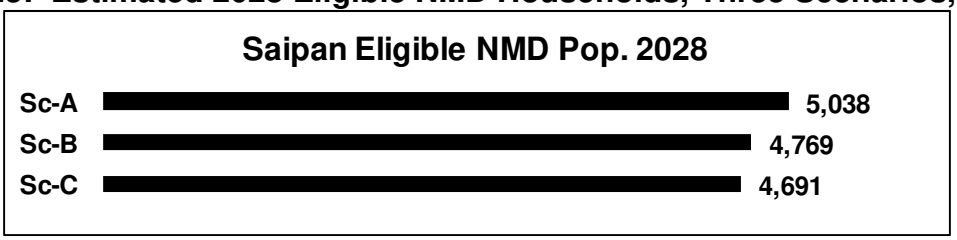
3.4.1 Total CNMI

Figure 22: Estimated 2028 Eligible NMD Households, Three Scenarios, CNMI-Wide



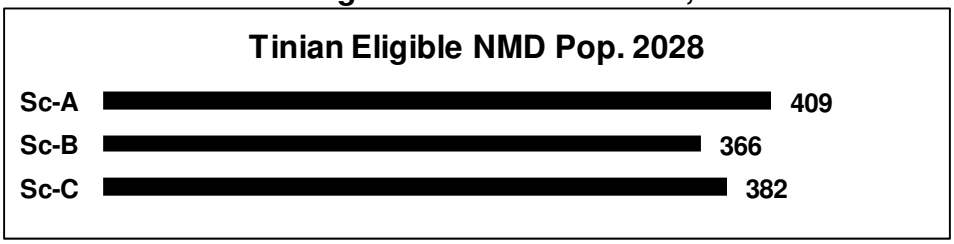
3.4.2 Saipan

Figure 23: Estimated 2028 Eligible NMD Households, Three Scenarios, Saipan



3.4.3 Tinian

Figure 24: Estimated 2028 Eligible NMD Households, Three Scenarios, Tinian



3.4.4 Rota

Figure 25: Estimated 2028 Eligible NMD Households, Three Scenarios, Rota

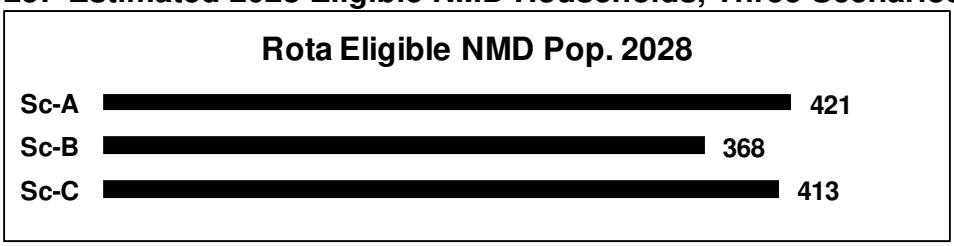


Table 33: Results, Eligible NMD Household Head Estimates, Scenario A, CNMI-Wide and Saipan

RESULTS -- ELIGIBLE NMD POPULATION -- CNMI-WIDE

	A	A	A

Final Estimate of Potentially Qualified Household Heads
After Applying Marriage, Household Income, and Ownership Screens

	2020	2025	2028	2030	2035
All ages					
(18+)	*5,247*	*5,681*	***5,869***	*5,959*	*6,156*
(18+ = Qualified HH Heads)					
18-19	705	736	731	728	723
20-24	1,365	1,479	1,487	1,483	1,478
25-29	973	1,071	1,112	1,124	1,144
30-34	753	839	902	933	985
35-39	513	561	598	623	679
40-44	245	254	272	283	313
45-49	87	89	91	94	103
50-54	222	209	210	213	226
55-59	144	148	144	143	144
60-64	89	94	95	95	95
65-69	68	79	83	84	86
70-74	42	58	64	67	72
75+	41	65	80	89	110

Population Including Any Presumed Intensive Construction Activity

All ages					
(18+)		*5,651*	*5,869*	*5,959*	*6,156*

RESULTS -- ELIGIBLE NMD POPULATION -- SAIPAN

	A

Final Estimate of Potentially Qualified Household Heads
After Applying Marriage, Household Income, and Ownership Screens

	2020	2025	2028	2030	2035
All ages					
(18+)	*4,569*	*4,874*	***5,038***	*5,139*	*5,352*
(18+ = Qualified HH Heads)					
18-19	585	618	632	638	644
20-24	1,209	1,222	1,246	1,264	1,294
25-29	882	923	940	953	983
30-34	665	760	793	810	846
35-39	431	495	532	552	590
40-44	200	222	239	250	276
45-49	73	75	79	82	90
50-54	186	177	178	182	196
55-59	122	121	120	120	123
60-64	78	80	80	79	80
65-69	62	69	71	71	72
70-74	39	52	56	58	61
75+	37	59	72	80	96

Population Including Any Presumed Intensive Construction Activity

All ages					
(18+)		*4,874*	*5,038*	*5,139*	*5,352*

Table 34: Results, Eligible NMD Household Head Estimates, Scenario B, CNMI-Wide and Saipan

RESULTS -- ELIGIBLE NMD POPULATION -- CNMI-WIDE

			B	B	B
Final Estimate of Potentially Qualified Household Heads					
After Applying Marriage, Household Income, and Ownership Screens					
	2020	2025	2028	2030	2035
All ages					
(18+)	*5,174*	*5,367*	***5,503***	*5,480*	*5,416*
(18+ = Qualified HH Heads)					
18-19	695	670	664	660	654
20-24	1,348	1,374	1,368	1,319	1,235
25-29	961	1,021	1,043	1,022	965
30-34	734	793	851	865	863
35-39	505	537	567	584	612
40-44	239	238	256	266	288
45-49	86	85	87	88	95
50-54	220	205	203	203	212
55-59	145	148	143	140	138
60-64	89	94	95	94	92
65-69	68	80	83	83	83
70-74	42	58	64	67	70
75+	41	65	80	89	108
Population Including Any Presumed Intensive Construction Activity					
All ages					
(18+)		*5,381*	*5,503*	*5,480*	*5,416*

RESULTS -- ELIGIBLE NMD POPULATION -- SAIPAN

			B		
Final Estimate of Potentially Qualified Household Heads					
After Applying Marriage, Household Income, and Ownership Screens					
	2020	2025	2028	2030	2035
All ages					
(18+)	*4,582*	*4,649*	***4,769***	*4,752*	*4,694*
(18+ = Qualified HH Heads)					
18-19	585	562	573	578	582
20-24	1,226	1,143	1,153	1,122	1,067
25-29	889	896	896	872	821
30-34	658	730	760	761	741
35-39	429	480	513	525	536
40-44	197	209	227	238	257
45-49	73	72	75	77	84
50-54	184	174	173	174	186
55-59	123	121	119	118	118
60-64	79	80	80	79	78
65-69	62	69	71	71	70
70-74	39	52	57	58	60
75+	38	59	72	80	95
Population Including Any Presumed Intensive Construction Activity					
All ages					
(18+)		*4,691*	*4,769*	*4,752*	*4,694*

Table 35: Results, Eligible NMD Household Head Estimates, Scenario C, CNMI-Wide and Saipan

RESULTS -- ELIGIBLE NMD POPULATION -- CNMI-WIDE

	C	C	C

Final Estimate of Potentially Qualified Household Heads
After Applying Marriage, Household Income, and Ownership Screens

	2020	2025	2028	2030	2035
All ages					
(18+)	*4,956*	*5,295*	***5,487***	*5,553*	*5,677*
(18+ = Qualified HH Heads)					
18-19	689	716	710	703	684
20-24	1,240	1,355	1,393	1,390	1,368
25-29	894	964	1,013	1,026	1,045
30-34	713	764	817	842	888
35-39	494	524	549	567	611
40-44	241	243	255	263	283
45-49	85	86	87	89	94
50-54	221	205	204	205	212
55-59	143	147	142	140	139
60-64	89	94	94	94	93
65-69	66	77	81	82	83
70-74	42	57	63	66	70
75+	39	63	78	87	107

Population Including Any Presumed Intensive Construction Activity

All ages					
(18+)		*5,246*	*5,487*	*5,553*	*5,677*

RESULTS -- ELIGIBLE NMD POPULATION -- SAIPAN

	C

Final Estimate of Potentially Qualified Household Heads
After Applying Marriage, Household Income, and Ownership Screens

	2020	2025	2028	2030	2035
All ages					
(18+)	*4,371*	*4,569*	***4,691***	*4,759*	*4,895*
(18+ = Qualified HH Heads)					
18-19	574	603	612	614	606
20-24	1,124	1,127	1,158	1,174	1,186
25-29	828	840	851	860	887
30-34	637	699	717	726	754
35-39	418	465	489	501	526
40-44	197	213	225	232	249
45-49	72	72	75	77	83
50-54	185	174	173	175	184
55-59	121	120	118	118	119
60-64	78	79	79	79	78
65-69	60	67	69	70	70
70-74	39	51	55	57	60
75+	36	57	70	77	93

Population Including Any Presumed Intensive Construction Activity

All ages					
(18+)		*4,601*	*4,691*	*4,759*	*4,895*

Table 36: Results, Eligible NMD Household Head Estimates, Scenario A, Tinian and Rota

RESULTS -- ELIGIBLE NMD POPULATION -- TINIAN

A

Final Estimate of Potentially Qualified Household Heads
After Applying Marriage, Household Income, and Ownership Screens

	2020	2025	2028	2030	2035
All ages					
(18+)	*307*	*402*	***409***	*398*	*373*
(18+ = Qualified HH Heads)					
18-19	65	62	45	37	29
20-24	72	154	134	114	81
25-29	36	79	96	96	82
30-34	39	26	52	63	74
35-39	39	26	26	31	45
40-44	19	10	11	12	17
45-49	6	5	4	4	5
50-54	13	10	11	11	11
55-59	8	12	9	9	7
60-64	5	6	6	6	6
65-69	3	5	5	6	5
70-74	2	3	4	4	5
75+	2	3	4	5	7

Population Including Any Presumed Intensive Construction Activity

All ages					
(18+)		*373*	*409*	*398*	*373*

RESULTS -- ELIGIBLE NMD POPULATION -- ROTA

A

Final Estimate of Potentially Qualified Household Heads
After Applying Marriage, Household Income, and Ownership Screens

	2020	2025	2028	2030	2035
All ages					
(18+)	*371*	*405*	***421***	*422*	*432*
(18+ = Qualified HH Heads)					
18-19	55	55	54	53	51
20-24	84	103	107	105	104
25-29	55	68	75	76	79
30-34	49	53	58	60	65
35-39	43	39	40	40	44
40-44	26	22	21	21	20
45-49	9	9	8	8	7
50-54	24	22	21	20	19
55-59	14	15	15	14	14
60-64	5	8	9	9	9
65-69	3	5	7	7	8
70-74	1	3	4	5	6
75+	2	3	4	5	7

Population Including Any Presumed Intensive Construction Activity

All ages					
(18+)		*405*	*421*	*422*	*432*

Table 37: Results, Eligible NMD Household Head Estimates, Scenario B, Tinian and Rota

RESULTS -- ELIGIBLE NMD POPULATION -- TINIAN

B

Final Estimate of Potentially Qualified Household Heads
After Applying Marriage, Household Income, and Ownership Screens

	2020	2025	2028	2030	2035
All ages					
(18+)	*255*	*355*	***366***	*355*	*335*
(18+ = Qualified HH Heads)					
18-19	62	60	43	35	26
20-24	49	141	125	106	75
25-29	22	65	85	86	75
30-34	32	16	41	53	66
35-39	36	21	20	24	38
40-44	18	8	9	9	14
45-49	5	5	4	4	4
50-54	13	10	10	10	9
55-59	8	12	9	8	7
60-64	5	6	6	6	5
65-69	3	5	5	5	5
70-74	2	3	4	4	4
75+	1	3	4	5	6

Population Including Any Presumed Intensive Construction Activity

All ages					
(18+)		*327*	*366*	*355*	*335*

RESULTS -- ELIGIBLE NMD POPULATION -- ROTA

B

Final Estimate of Potentially Qualified Household Heads
After Applying Marriage, Household Income, and Ownership Screens

	2020	2025	2028	2030	2035
All ages					
(18+)	*338*	*363*	***368***	*373*	*387*
(18+ = Qualified HH Heads)					
18-19	48	48	47	47	46
20-24	73	89	89	90	93
25-29	50	59	63	64	69
30-34	44	47	49	51	56
35-39	41	36	35	35	38
40-44	24	21	19	19	18
45-49	8	8	8	7	7
50-54	24	21	20	19	17
55-59	14	15	14	14	13
60-64	5	8	9	9	9
65-69	3	5	6	7	8
70-74	1	3	4	5	6
75+	2	3	4	5	7

Population Including Any Presumed Intensive Construction Activity

All ages					
(18+)		*363*	*368*	*373*	*387*

Table 38: Results, Eligible NMD Household Head Estimates, Scenario C, Tinian and Rota

RESULTS -- ELIGIBLE NMD POPULATION -- TINIAN

C

Final Estimate of Potentially Qualified Household Heads
After Applying Marriage, Household Income, and Ownership Screens

	2020	2025	2028	2030	2035
All ages					
(18+)	*266*	*365*	***382***	*372*	*350*
(18+ = Qualified HH Heads)					
18-19	63	61	45	37	27
20-24	54	144	130	111	78
25-29	25	69	89	90	79
30-34	33	18	44	56	70
35-39	37	22	21	26	41
40-44	18	9	10	10	14
45-49	5	5	4	4	4
50-54	13	10	10	10	9
55-59	8	12	9	8	7
60-64	5	6	6	6	5
65-69	3	5	5	5	5
70-74	2	3	4	4	5
75+	1	3	4	5	6

Population Including Any Presumed Intensive Construction Activity

All ages					
(18+)		*284*	*382*	*372*	*350*

RESULTS -- ELIGIBLE NMD POPULATION -- ROTA

C

Final Estimate of Potentially Qualified Household Heads
After Applying Marriage, Household Income, and Ownership Screens

	2020	2025	2028	2030	2035
All ages					
(18+)	*319*	*362*	***413***	*422*	*432*
(18+ = Qualified HH Heads)					
18-19	52	53	52	53	51
20-24	62	84	105	105	104
25-29	41	56	74	76	79
30-34	42	47	56	60	65
35-39	40	36	39	40	44
40-44	25	22	21	21	20
45-49	8	8	8	8	7
50-54	24	21	21	20	19
55-59	14	15	15	14	14
60-64	5	9	9	9	9
65-69	3	5	7	7	8
70-74	1	3	4	5	6
75+	2	2	4	5	7

Population Including Any Presumed Intensive Construction Activity

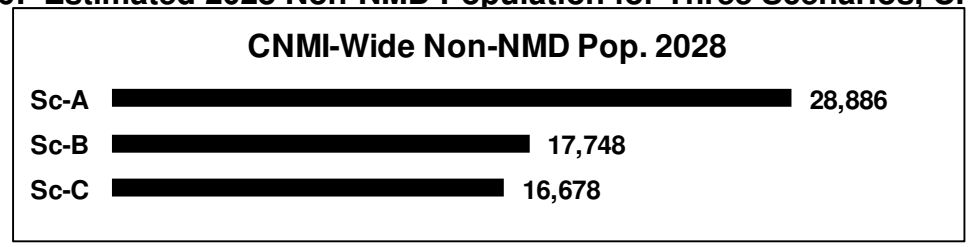
All ages					
(18+)		*362*	*414*	*422*	*432*

3.5 Results: Non-NMD CNMI Resident Population Estimates

The Non-NMD Resident population of the CNMI (citizens or green card holders from the Philippines, Freely Associated States, U.S., etc.) in contrast to the NMD population *has* historically responded to economic change with in- or out-migration. Therefore, the estimates below show much wider variation, especially for High-Growth Scenario A on Saipan. Tinian's higher Non-NMD figure for Scenario C is due primarily to that island's apparently greater proportion of foreign workers who would leave if CW-1 visas are eliminated (following Section 3.6) and subsequent small Non-NMD in-migration in response to limited military development.

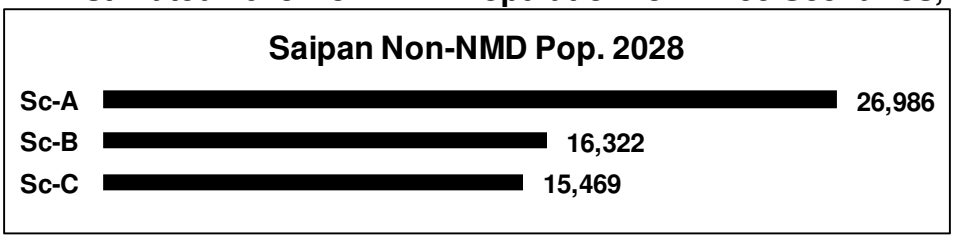
3.5.1 Total CNMI

Figure 26: Estimated 2028 Non-NMD Population for Three Scenarios, CNMI-Wide



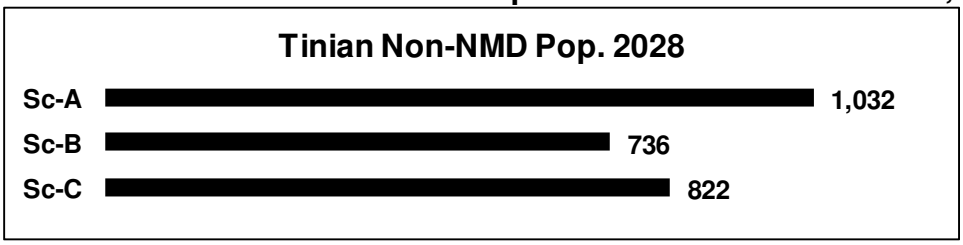
3.5.2 Saipan

Figure 27: Estimated 2028 Non-NMD Population for Three Scenarios, Saipan



3.5.3 Tinian

Figure 28: Estimated 2028 Non-NMD Population for Three Scenarios, Tinian



3.5.4 Rota

Figure 29: Estimated 2028 Non-NMD Population for Three Scenarios, Rota

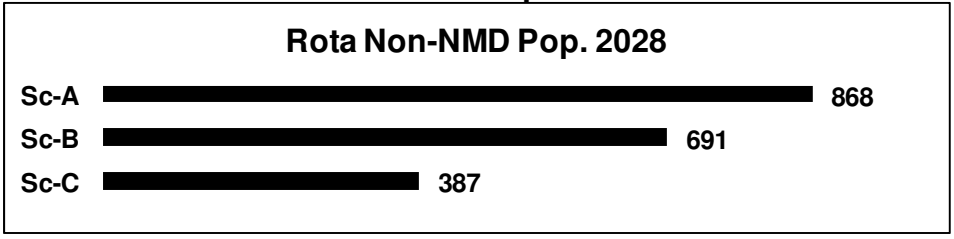


Table 39: Results, Non-NMD Population Estimates, Scenario A, CNMI-Wide and Saipan

RESULTS -- NON-NMD RESIDENT POPULATION -- CNMI-WIDE

Island Scenarios: **A** **A** **A**

	2016	2020	2025	2028	2030	2035
All ages	18,860	21,412	25,710	**28,886**	30,702	35,229
(18+)	*8,694*	*12,562*	*16,445*	***18,967***	*20,231*	*23,565*
0-4	2,035	1,640	2,835	3,251	3,508	3,691
5-9	3,044	2,327	2,249	2,621	2,869	3,388
10-14	3,431	3,008	2,449	2,424	2,518	2,943
15-19	2,761	3,124	2,888	2,705	2,629	2,735
20-24	1,560	2,910	3,412	3,494	3,357	3,302
25-29	739	2,218	3,346	3,867	3,925	3,970
30-34	459	1,300	2,507	3,272	3,605	4,007
35-39	542	709	1,499	2,177	2,620	3,405
40-44	735	628	903	1,313	1,657	2,553
45-49	746	639	639	791	983	1,665
50-54	824	683	586	582	644	1,018
55-59	720	669	583	524	516	640
60-64	502	573	565	520	492	490
65-69	360	418	468	460	445	412
70-74	125	259	353	379	383	373
75+	278	308	428	506	553	636

Population Including Any Presumed Intensive Construction Activity

All ages	21,412	25,922	28,886	30,702	35,229
(18+)	*12,562*	*16,648*	*18,967*	*20,231*	*23,565*

RESULTS -- NON-NMD RESIDENT POPULATION -- SAIPAN

Saipan Scenario: **A**

	2016	2020	2025	2028	2030	2035
All ages	17,241	19,698	23,962	**26,986**	28,849	33,451
(18+)	*7,955*	*11,566*	*15,353*	***17,680***	*18,965*	*22,340*
0-4	1,805	1,533	2,673	3,103	3,351	3,529
5-9	2,780	2,117	2,092	2,464	2,723	3,245
10-14	3,161	2,753	2,249	2,244	2,351	2,796
15-19	2,564	2,882	2,659	2,491	2,431	2,570
20-24	1,480	2,719	3,221	3,257	3,135	3,117
25-29	704	2,091	3,208	3,656	3,714	3,776
30-34	397	1,215	2,406	3,118	3,444	3,838
35-39	489	646	1,416	2,072	2,510	3,277
40-44	631	553	830	1,232	1,577	2,461
45-49	631	544	557	715	913	1,596
50-54	758	597	497	502	572	956
55-59	686	614	503	446	444	580
60-64	486	543	510	457	429	432
65-69	307	387	432	417	400	364
70-74	109	231	326	349	351	335
75+	252	275	386	461	505	580

Population Including Any Presumed Intensive Construction Activity

All ages	19,698	23,962	26,986	28,849	33,451
(18+)	*11,566*	*15,353*	*17,680*	*18,965*	*22,340*

Table 40: Results, Non-NMD Population Estimates, Scenario B, CNMI-Wide and Saipan

RESULTS -- NON-NMD RESIDENT POPULATION -- CNMI-WIDE

Island Scenarios: B B B

	2016	2020	2025	2028	2030	2035
All ages	18,860	19,194	16,900	**17,748**	17,901	18,141
(18+)	*8,694*	*10,472*	*12,496*	***12,952***	*12,931*	*12,954*
0-4	2,035	1,610	1,427	1,741	1,758	1,569
5-9	3,044	2,299	913	1,216	1,378	1,544
10-14	3,431	2,989	984	1,002	1,083	1,345
15-19	2,761	3,039	1,802	1,396	1,251	1,214
20-24	1,560	2,281	2,544	2,099	1,811	1,372
25-29	739	1,321	2,005	2,188	2,098	1,690
30-34	459	709	1,459	1,767	1,865	1,812
35-39	542	531	900	1,217	1,380	1,637
40-44	735	589	674	831	952	1,293
45-49	746	690	704	702	729	951
50-54	824	761	697	683	669	742
55-59	720	748	734	693	662	641
60-64	502	616	687	673	648	599
65-69	360	441	538	565	563	537
70-74	125	260	385	432	450	465
75+	278	310	449	544	603	729

Population Including Any Presumed Intensive Construction Activity

All ages	19,472	17,763	17,748	17,901	18,141
(18+)	*10,739*	*12,710*	*12,952*	*12,931*	*12,954*

RESULTS -- NON-NMD RESIDENT POPULATION -- SAIPAN

Saipan Scenario: B

	2016	2020	2025	2028	2030	2035
All ages	17,241	17,751	15,443	**16,322**	16,540	16,879
(18+)	*7,955*	*9,695*	*11,575*	***11,992***	*11,999*	*12,075*
0-4	1,805	1,523	1,325	1,640	1,653	1,456
5-9	2,780	2,107	790	1,112	1,283	1,451
10-14	3,161	2,742	802	856	957	1,244
15-19	2,564	2,807	1,585	1,205	1,081	1,087
20-24	1,480	2,128	2,367	1,900	1,622	1,219
25-29	704	1,250	1,875	2,023	1,929	1,531
30-34	397	668	1,384	1,663	1,752	1,683
35-39	489	488	853	1,164	1,319	1,554
40-44	631	535	627	794	916	1,243
45-49	631	608	641	658	696	921
50-54	758	682	621	624	622	714
55-59	686	697	663	630	607	605
60-64	486	590	637	620	596	558
65-69	307	413	506	528	525	499
70-74	109	234	360	405	422	433
75+	252	278	410	502	560	681

Population Including Any Presumed Intensive Construction Activity

All ages	18,029	16,150	16,322	16,540	16,879
(18+)	*9,962*	*11,642*	*11,992*	*11,999*	*12,075*

Table 41: Results, Non-NMD Population Estimates, Scenario C, CNMI-Wide and Saipan

RESULTS -- NON-NMD RESIDENT POPULATION -- CNMI-WIDE

Island Scenarios: C C C

	2016	2020	2025	2028	2030	2035
All ages	18,860	16,927	16,453	**16,678**	16,787	17,319
(18+)	*8,694*	*8,826*	*9,712*	***10,354***	*10,649*	*11,326*
0-4	2,035	1,359	1,575	1,659	1,692	1,752
5-9	3,044	2,078	1,527	1,517	1,531	1,606
10-14	3,431	2,879	2,082	1,789	1,674	1,587
15-19	2,761	2,975	2,595	2,267	2,068	1,746
20-24	1,560	2,249	2,509	2,460	2,345	1,999
25-29	739	1,260	1,904	2,153	2,217	2,131
30-34	459	472	1,039	1,441	1,647	1,919
35-39	542	216	401	718	943	1,442
40-44	735	321	196	299	429	893
45-49	746	468	211	177	209	457
50-54	824	607	369	252	201	241
55-59	720	619	469	364	292	197
60-64	502	524	484	424	370	245
65-69	360	383	409	395	370	282
70-74	125	233	305	324	324	290
75+	278	285	377	440	475	532

Population Including Any Presumed Intensive Construction Activity

All ages	16,927	17,625	16,681	16,787	17,319
(18+)	*8,826*	*10,753*	*10,354*	*10,649*	*11,326*

RESULTS -- NON-NMD RESIDENT POPULATION -- SAIPAN

Saipan Scenario: C

	2016	2020	2025	2028	2030	2035
All ages	17,241	15,455	15,253	**15,469**	15,634	16,234
(18+)	*7,955*	*8,029*	*9,004*	***9,556***	*9,855*	*10,539*
0-4	1,805	1,268	1,492	1,592	1,627	1,672
5-9	2,780	1,882	1,419	1,423	1,454	1,541
10-14	3,161	2,630	1,907	1,649	1,556	1,505
15-19	2,564	2,742	2,385	2,081	1,903	1,628
20-24	1,480	2,094	2,372	2,291	2,177	1,855
25-29	704	1,187	1,832	2,042	2,091	1,991
30-34	397	431	1,008	1,383	1,576	1,819
35-39	489	172	378	686	905	1,379
40-44	631	263	169	273	404	856
45-49	631	383	159	138	182	433
50-54	758	526	296	193	154	216
55-59	686	566	401	297	234	160
60-64	486	496	436	368	315	200
65-69	307	355	378	357	329	241
70-74	109	206	282	298	295	257
75+	252	253	339	398	432	482

Population Including Any Presumed Intensive Construction Activity

All ages	15,455	15,620	15,469	15,634	16,234
(18+)	*8,029*	*9,274*	*9,556*	*9,855*	*10,539*

Table 42: Results, Non-NMD Population Estimates, Scenario A, Tinian and Rota

RESULTS -- NON-NMD RESIDENT POPULATION -- TINIAN

Tinian Scenario: **A**

	2016	2020	2025	2028	2030	2035
All ages	1,000	1,102	1,003	**1,032**	1,004	954
(18+)	*499*	*696*	*603*	***692***	*693*	*694*
0-4	118	64	119	67	62	61
5-9	134	110	96	97	83	63
10-14	159	140	110	105	99	79
15-19	151	154	126	118	112	95
20-24	52	141	79	112	112	104
25-29	26	102	40	81	90	98
30-34	34	64	40	56	61	76
35-39	25	38	50	49	47	54
40-44	67	44	47	48	44	43
45-49	59	53	54	49	45	39
50-54	58	54	59	53	49	41
55-59	34	43	57	54	51	43
60-64	17	27	44	47	47	43
65-69	34	23	30	35	37	38
70-74	17	21	22	25	27	30
75+	17	24	32	35	38	45
Population Including Any Presumed Intensive Construction Activity						
All ages		1,102	1,215	1,032	1,004	954
(18+)		*696*	*806*	*692*	*693*	*694*

RESULTS -- NON-NMD RESIDENT POPULATION -- ROTA

Rota Scenario: **A**

	2016	2020	2025	2028	2030	2035
All ages	619	612	745	**868**	849	824
(18+)	*240*	*300*	*489*	***596***	*573*	*531*
0-4	112	43	43	81	95	102
5-9	129	100	61	59	63	80
10-14	111	116	90	75	67	68
15-19	47	87	103	96	86	70
20-24	28	51	113	124	110	82
25-29	9	25	98	130	121	96
30-34	28	21	62	97	100	93
35-39	28	25	33	56	63	74
40-44	36	31	27	34	36	50
45-49	56	42	29	27	24	30
50-54	8	32	31	27	23	21
55-59	0	13	22	23	21	16
60-64	0	3	12	16	16	14
65-69	19	7	6	8	9	11
70-74	0	7	5	6	6	7
75+	9	9	10	10	10	10
Population Including Any Presumed Intensive Construction Activity						
All ages		612	745	868	849	824
(18+)		*300*	*489*	*596*	*573*	*531*

Table 43: Results, Non-NMD Population Estimates, Scenario B, Tinian and Rota

RESULTS -- NON-NMD RESIDENT POPULATION -- TINIAN

Tinian Scenario: **B**

	2016	2020	2025	2028	2030	2035
All ages	1,000	831	712	**736**	704	657
(18+)	*499*	*477*	*432*	***510***	*506*	*494*
0-4	118	44	58	33	33	42
5-9	134	92	62	55	44	35
10-14	159	131	92	77	66	46
15-19	151	145	114	102	90	66
20-24	52	102	65	98	96	81
25-29	26	45	33	70	77	81
30-34	34	20	13	37	45	62
35-39	25	18	13	19	22	37
40-44	67	23	20	17	16	23
45-49	59	40	34	25	19	16
50-54	58	47	46	36	29	17
55-59	34	38	49	43	38	25
60-64	17	23	38	40	39	31
65-69	34	21	27	30	31	30
70-74	17	19	19	22	23	26
75+	17	22	29	32	34	40

Population Including Any Presumed Intensive Construction Activity

All ages	831	869	736	704	657
(18+)	*477*	*580*	*510*	*506*	*494*

RESULTS -- NON-NMD RESIDENT POPULATION -- ROTA

Rota Scenario: **B**

	2016	2020	2025	2028	2030	2035
All ages	619	612	745	**691**	658	606
(18+)	*240*	*300*	*489*	***450***	*427*	*385*
0-4	112	43	43	69	72	72
5-9	129	100	61	49	51	58
10-14	111	116	90	69	60	54
15-19	47	87	103	90	80	61
20-24	28	51	113	101	93	72
25-29	9	25	98	95	92	78
30-34	28	21	62	66	69	67
35-39	28	25	33	35	38	47
40-44	36	31	27	21	20	27
45-49	56	42	29	19	14	14
50-54	8	32	31	23	18	11
55-59	0	13	22	20	18	11
60-64	0	3	12	13	13	11
65-69	19	7	6	7	7	8
70-74	0	7	5	4	4	6
75+	9	9	10	9	9	8

Population Including Any Presumed Intensive Construction Activity

All ages	612	745	691	658	606
(18+)	*300*	*489*	*450*	*427*	*385*

Table 44: Results, Non-NMD Population Estimates, Scenario C, Tinian and Rota

RESULTS -- NON-NMD RESIDENT POPULATION -- TINIAN

Tinian Scenario: **C**

	2016	2020	2025	2028	2030	2035
All ages	1,000	861	739	**822**	784	717
(18+)	*499*	*497*	*449*	***502***	*510*	*518*
0-4	118	48	61	47	37	39
5-9	134	96	65	83	65	40
10-14	159	132	94	114	99	65
15-19	151	146	116	127	120	92
20-24	52	104	65	91	102	101
25-29	26	48	34	57	68	86
30-34	34	20	14	26	35	54
35-39	25	19	14	16	19	33
40-44	67	27	22	17	15	20
45-49	59	43	37	26	19	14
50-54	58	49	49	40	32	16
55-59	34	40	51	47	41	25
60-64	17	25	40	43	41	32
65-69	34	21	28	32	33	31
70-74	17	20	20	23	24	27
75+	17	23	30	33	35	41

Population Including Any Presumed Intensive Construction Activity

All ages	861	1,544	822	784	717
(18+)	*497*	*1,220*	*502*	*510*	*518*

RESULTS -- NON-NMD RESIDENT POPULATION -- ROTA

Rota Scenario: **C**

	2016	2020	2025	2028	2030	2035
All ages	619	612	461	**387**	368	368
(18+)	*240*	*300*	*259*	***296***	*283*	*270*
0-4	112	43	22	21	27	41
5-9	129	100	43	10	12	24
10-14	111	116	81	26	19	17
15-19	47	87	93	58	45	25
20-24	28	51	72	77	67	43
25-29	9	25	39	54	59	54
30-34	28	21	17	33	37	46
35-39	28	25	9	16	18	31
40-44	36	31	6	9	10	17
45-49	56	42	16	13	9	10
50-54	8	32	24	19	15	9
55-59	0	13	18	20	17	12
60-64	0	3	7	13	14	13
65-69	19	7	3	6	8	10
70-74	0	7	4	4	4	7
75+	9	9	9	9	8	9

Population Including Any Presumed Intensive Construction Activity

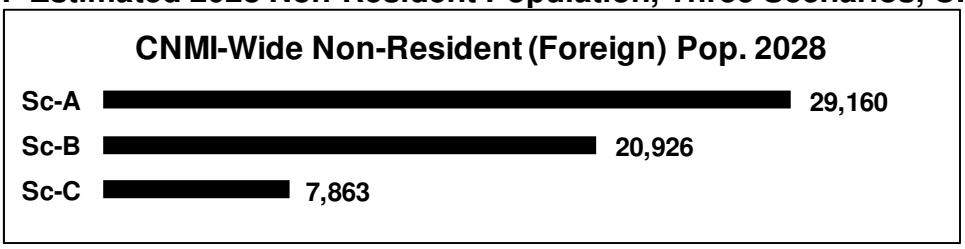
All ages	612	461	390	368	368
(18+)	*300*	*259*	*296*	*283*	*270*

3.6 Results: Non-Resident (Foreign) Population Estimates

Almost by definition, this has been the population component *most* responsive to economic change in the CNMI, and so both the summary figures below and the detailed figures in the following tables show the greatest variation by scenario. Note that Tinian's population below indicates the greatest exodus (proportionally) of CW-1 population, including dependents, for Scenario C, thus explaining that island's other unique responses to Scenario C in the foregoing sections.

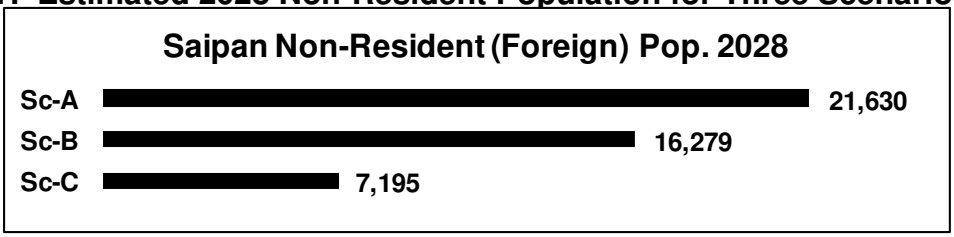
3.6.1 Total CNMI

Figure 30: Estimated 2028 Non-Resident Population, Three Scenarios, CNMI-Wide



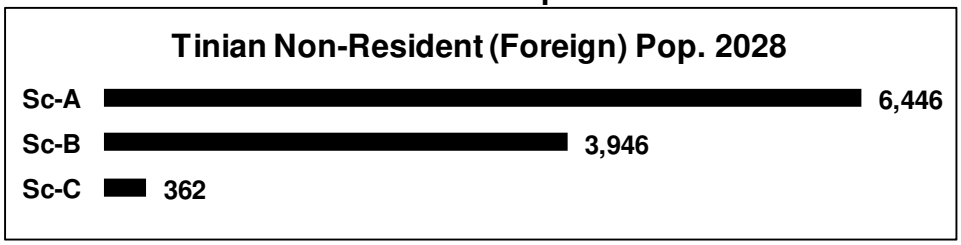
3.6.2 Saipan

Figure 31: Estimated 2028 Non-Resident Population for Three Scenarios, Saipan



3.6.3 Tinian

Figure 32: Estimated 2028 Non-Resident Population for Three Scenarios, Tinian



3.6.4 Rota

Figure 33: Estimated 2028 Non-Resident Population for Three Scenarios, Rota

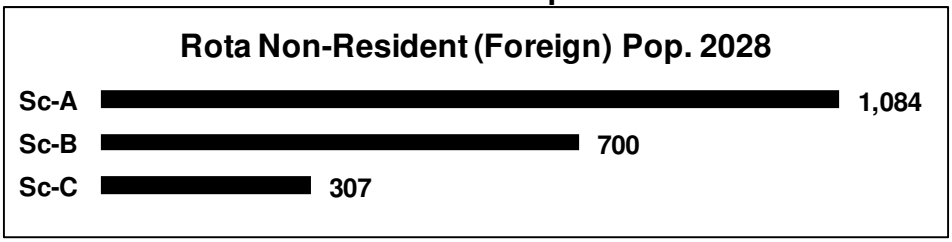


Table 45: Results, Non-Resident (Foreign) Population Estimates, Scenario A, CNMI-Wide and Saipan

RESULTS -- NON-RESIDENT FOREIGN POPULATION -- CNMI-WIDE

Island Scenarios: A A A

	2016	2020	2025	2028	2030	2035
All ages	17,935	22,638	23,332	**29,160**	29,435	30,000
(18+)	*16,936*	*21,064*	*20,609*	***25,740***	*25,454*	*24,655*
0-4	106	615	1,297	1,298	1,593	2,030
5-9	260	328	743	1,040	1,159	1,596
10-14	303	293	436	673	814	1,186
15-19	549	563	412	681	691	889
20-24	341	1,755	888	2,393	1,773	1,094
25-29	775	2,451	1,653	3,694	3,150	1,935
30-34	961	2,012	2,047	3,369	3,423	2,791
35-39	1,839	1,627	1,944	2,404	2,755	3,017
40-44	2,777	2,089	1,889	1,969	2,155	2,682
45-49	3,042	2,525	2,114	1,810	1,874	2,228
50-54	2,944	2,696	2,402	1,967	1,901	1,959
55-59	2,002	2,340	2,422	2,112	2,019	1,882
60-64	1,216	1,668	2,073	2,039	2,001	1,859
65-69	515	948	1,455	1,601	1,665	1,670
70-74	171	458	881	1,108	1,223	1,383
75+	134	270	677	1,002	1,240	1,799
Population Including Any Presumed Intensive Construction Activity						
All ages	24,570	26,814	30,404	30,324	30,631	
(18+)	*22,919*	*23,957*	*26,935*	*26,308*	*25,261*	

RESULTS -- NON-RESIDENT FOREIGN POPULATION -- SAIPAN

Saipan Scenario: A

	2016	2020	2025	2028	2030	2035
All ages	16,338	18,233	18,271	**21,630**	21,620	21,486
(18+)	*15,447*	*16,910*	*16,417*	***19,448***	*19,147*	*18,265*
0-4	90	545	766	736	915	1,197
5-9	235	283	536	660	705	941
10-14	252	242	354	486	551	728
15-19	524	422	328	501	502	589
20-24	289	885	529	1,532	1,159	739
25-29	722	1,223	861	2,238	1,940	1,242
30-34	848	1,169	1,083	1,951	2,022	1,716
35-39	1,715	1,300	1,197	1,405	1,610	1,807
40-44	2,509	1,885	1,449	1,341	1,382	1,624
45-49	2,744	2,363	1,862	1,504	1,442	1,470
50-54	2,654	2,533	2,221	1,822	1,689	1,498
55-59	1,878	2,209	2,272	2,001	1,893	1,630
60-64	1,102	1,582	1,955	1,930	1,894	1,713
65-69	488	903	1,378	1,516	1,577	1,572
70-74	162	431	836	1,052	1,160	1,310
75+	126	259	643	954	1,180	1,709
Population Including Any Presumed Intensive Construction Activity						
All ages	20,038	20,039	22,874	22,508	22,116	
(18+)	*18,644*	*18,116*	*20,643*	*20,001*	*18,871*	

Table 46: Results, Non-Resident (Foreign) Population Estimates, Scenario B, CNMI-Wide and Saipan

RESULTS -- NON-RESIDENT FOREIGN POPULATION -- CNMI-WIDE

Island Scenarios: B B B

	2016	2020	2025	2028	2030	2035
All ages	17,935	18,185	17,880	**20,926**	20,699	20,027
(18+)	*16,936*	*16,783*	*16,300*	***19,072***	*18,684*	*17,544*
0-4	106	592	524	532	665	889
5-9	260	305	486	558	559	703
10-14	303	269	368	468	498	580
15-19	549	392	339	493	487	517
20-24	341	417	399	1,277	992	656
25-29	775	548	484	1,726	1,528	1,030
30-34	961	775	609	1,418	1,504	1,340
35-39	1,839	1,270	873	1,037	1,180	1,359
40-44	2,777	2,048	1,373	1,182	1,139	1,239
45-49	3,042	2,669	1,993	1,604	1,438	1,251
50-54	2,944	2,888	2,483	2,084	1,878	1,481
55-59	2,002	2,498	2,568	2,343	2,194	1,782
60-64	1,216	1,766	2,206	2,224	2,192	1,954
65-69	515	1,003	1,545	1,734	1,809	1,810
70-74	171	466	928	1,185	1,316	1,503
75+	134	278	703	1,060	1,318	1,932

Population Including Any Presumed Intensive Construction Activity

All ages	18,575	19,626	20,926	20,699	20,027
(18+)	*17,141*	*17,977*	*19,072*	*18,684*	*17,544*

RESULTS -- NON-RESIDENT FOREIGN POPULATION -- SAIPAN

Saipan Scenario: B

	2016	2020	2025	2028	2030	2035
All ages	16,338	16,560	16,186	**16,279**	15,904	14,672
(18+)	*15,447*	*15,302*	*14,768*	***14,710***	*14,343*	*13,255*
0-4	90	536	473	462	424	310
5-9	235	274	438	493	478	409
10-14	252	233	328	409	438	445
15-19	524	357	299	341	369	422
20-24	289	377	334	346	347	381
25-29	722	500	404	405	383	367
30-34	848	699	529	527	480	405
35-39	1,715	1,164	788	720	644	504
40-44	2,509	1,870	1,253	1,053	923	682
45-49	2,744	2,418	1,817	1,528	1,338	966
50-54	2,654	2,606	2,253	1,988	1,790	1,336
55-59	1,878	2,281	2,332	2,218	2,082	1,679
60-64	1,102	1,623	2,012	2,090	2,068	1,850
65-69	488	925	1,416	1,620	1,696	1,708
70-74	162	434	855	1,093	1,222	1,409
75+	126	262	654	986	1,223	1,799

Population Including Any Presumed Intensive Construction Activity

All ages	16,930	16,186	16,279	15,904	14,672
(18+)	*15,658*	*14,768*	*14,710*	*14,343*	*13,255*

Table 47: Results, Non-Resident (Foreign) Population Estimates, Scenario C, CNMI-Wide and Saipan

RESULTS -- NON-RESIDENT FOREIGN POPULATION -- CNMI-WIDE

Island Scenarios: C C C

	2016	2020	2025	2028	2030	2035
All ages	17,935	10,344	8,347	**7,863**	7,492	6,427
(18+)	*16,936*	*10,176*	*8,289*	***7,811***	*7,444*	*6,395*
0-4	106	114	16	9	6	2
5-9	260	0	27	20	16	8
10-14	303	6	8	16	17	14
15-19	549	79	12	12	13	15
20-24	341	56	18	14	14	14
25-29	775	156	54	35	28	18
30-34	961	204	99	73	58	34
35-39	1,839	302	145	117	100	63
40-44	2,777	857	294	216	178	112
45-49	3,042	1,713	753	510	398	224
50-54	2,944	2,228	1,387	1,017	817	464
55-59	2,002	1,986	1,725	1,455	1,256	806
60-64	1,216	1,386	1,584	1,548	1,455	1,105
65-69	515	758	1,118	1,254	1,281	1,162
70-74	171	335	657	849	944	1,033
75+	134	164	450	718	911	1,354

Population Including Any Presumed Intensive Construction Activity

All ages	10,344	8,347	7,863	7,492	6,427
(18+)	*10,176*	*8,289*	*7,811*	*7,444*	*6,395*

RESULTS -- NON-RESIDENT FOREIGN POPULATION -- SAIPAN

Saipan Scenario: C

	2016	2020	2025	2028	2030	2035
All ages	16,338	9,472	7,641	**7,195**	6,852	5,874
(18+)	*15,447*	*9,327*	*7,589*	***7,147***	*6,808*	*5,844*
0-4	90	105	15	8	6	2
5-9	235	0	25	19	15	8
10-14	252	0	7	15	16	13
15-19	524	67	9	10	12	14
20-24	289	49	13	11	10	12
25-29	722	149	49	31	23	15
30-34	848	193	94	68	54	30
35-39	1,715	278	137	111	94	58
40-44	2,509	791	270	199	165	104
45-49	2,744	1,555	686	466	365	207
50-54	2,654	2,010	1,257	924	742	424
55-59	1,878	1,819	1,568	1,321	1,140	733
60-64	1,102	1,279	1,449	1,411	1,324	1,004
65-69	488	704	1,030	1,150	1,172	1,058
70-74	162	315	610	783	868	945
75+	126	158	424	670	846	1,248

Population Including Any Presumed Intensive Construction Activity

All ages	9,472	7,641	7,195	6,852	5,874
(18+)	*9,327*	*7,589*	*7,147*	*6,808*	*5,844*

Table 48: Results, Non-Resident (Foreign) Population Estimates, Scenario A, Tinian and Rota

RESULTS -- NON-RESIDENT FOREIGN POPULATION -- TINIAN

Tinian Scenario: **A**

	2016	2020	2025	2028	2030	2035
All ages	974	3,592	4,143	**6,446**	6,717	7,389
(18+)	*875*	*3,380*	*3,369*	***5,340***	*5,365*	*5,476*
0-4	17	51	481	505	611	753
5-9	17	36	181	340	407	589
10-14	51	45	69	165	233	410
15-19	25	133	72	160	168	267
20-24	33	807	310	784	557	319
25-29	25	1,131	700	1,322	1,099	628
30-34	75	763	864	1,284	1,270	974
35-39	59	266	665	897	1,031	1,094
40-44	193	138	371	550	685	951
45-49	177	77	184	242	363	669
50-54	160	56	99	76	146	387
55-59	59	41	62	37	55	184
60-64	59	22	40	34	34	79
65-69	8	7	22	24	26	37
70-74	8	11	12	13	16	22
75+	8	7	13	13	15	24

Population Including Any Presumed Intensive Construction Activity

All ages	3,592	5,729	6,446	6,717	7,389
(18+)	*3,380*	*4,897*	*5,340*	*5,365*	*5,476*

RESULTS -- NON-RESIDENT FOREIGN POPULATION -- ROTA

Rota Scenario: **A**

	2016	2020	2025	2028	2030	2035
All ages	623	812	918	**1,084**	1,098	1,126
(18+)	*614*	*773*	*823*	***953***	*942*	*914*
0-4	0	19	50	57	67	80
5-9	9	10	26	40	47	65
10-14	0	5	13	23	30	48
15-19	0	8	11	20	21	33
20-24	19	63	49	77	57	36
25-29	28	97	92	133	111	65
30-34	37	80	100	134	131	101
35-39	65	61	82	102	113	116
40-44	74	65	68	78	88	107
45-49	121	84	68	64	70	89
50-54	130	107	82	68	67	74
55-59	65	90	88	75	71	68
60-64	56	65	78	75	73	66
65-69	19	38	56	60	62	61
70-74	0	16	34	42	46	51
75+	0	4	21	35	45	67

Population Including Any Presumed Intensive Construction Activity

All ages	940	1,046	1,084	1,098	1,126
(18+)	*896*	*945*	*953*	*942*	*914*

Table 49: Results, Non-Resident (Foreign) Population Estimates, Scenario B, Tinian and Rota

RESULTS -- NON-RESIDENT FOREIGN POPULATION -- TINIAN

Tinian Scenario: **B**

	2016	2020	2025	2028	2030	2035
All ages	974	994	986	**3,946**	4,103	4,698
(18+)	*875*	*882*	*873*	***3,723***	*3,719*	*3,712*
0-4	17	38	33	45	215	553
5-9	17	23	32	47	60	270
10-14	51	31	29	46	45	115
15-19	25	34	31	142	107	80
20-24	33	32	32	910	628	261
25-29	25	29	31	1,282	1,114	642
30-34	75	47	35	846	983	904
35-39	59	59	46	275	493	817
40-44	193	115	73	85	173	515
45-49	177	161	113	22	50	241
50-54	160	167	145	25	24	93
55-59	59	119	142	40	33	41
60-64	59	74	110	50	43	33
65-69	8	38	69	47	44	35
70-74	8	16	37	47	44	37
75+	8	12	27	37	47	61

Population Including Any Presumed Intensive Construction Activity

All ages	994	2,732	3,946	4,103	4,698
(18+)	*882*	*2,551*	*3,723*	*3,719*	*3,712*

RESULTS -- NON-RESIDENT FOREIGN POPULATION -- ROTA

Rota Scenario: **B**

	2016	2020	2025	2028	2030	2035
All ages	623	631	708	**700**	691	657
(18+)	*614*	*599*	*659*	***638***	*622*	*577*
0-4	0	18	18	24	26	26
5-9	9	9	16	18	21	24
10-14	0	4	10	13	15	20
15-19	0	1	9	10	11	16
20-24	19	8	32	21	17	15
25-29	28	19	49	39	32	21
30-34	37	29	45	45	42	31
35-39	65	46	39	42	43	38
40-44	74	63	47	44	43	42
45-49	121	90	63	54	50	45
50-54	130	114	85	72	64	52
55-59	65	98	94	85	78	62
60-64	56	69	84	84	81	70
65-69	19	40	60	67	69	67
70-74	0	16	36	46	51	57
75+	0	4	23	38	48	72

Population Including Any Presumed Intensive Construction Activity

All ages	651	708	700	691	657
(18+)	*601*	*659*	*638*	*622*	*577*

Table 50: Results, Non-Resident (Foreign) Population Estimates, Scenario C, Tinian and Rota

RESULTS -- NON-RESIDENT FOREIGN POPULATION -- TINIAN

Tinian Scenario: **C**

	2016	2020	2025	2028	2030	2035
All ages	974	483	380	**362**	347	304
(18+)	*875*	*463*	*376*	***359***	*345*	*302*
0-4	17	7	0	0	0	0
5-9	17	0	1	1	1	0
10-14	51	6	1	1	1	1
15-19	25	12	3	2	2	1
20-24	33	7	5	4	3	2
25-29	25	6	5	5	4	3
30-34	75	2	3	4	4	4
35-39	59	5	1	2	3	4
40-44	193	42	11	6	5	4
45-49	177	100	41	25	18	9
50-54	160	125	78	56	44	22
55-59	59	86	88	77	67	42
60-64	59	50	70	75	73	57
65-69	8	22	42	53	58	57
70-74	8	8	20	31	37	47
75+	8	5	12	21	29	52

Population Including Any Presumed Intensive Construction Activity

All ages	483	380	362	347	304
(18+)	*463*	*376*	*359*	*345*	*302*

RESULTS -- NON-RESIDENT FOREIGN POPULATION -- ROTA

Rota Scenario: **C**

	2016	2020	2025	2028	2030	2035
All ages	623	388	325	**307**	292	250
(18+)	*614*	*386*	*324*	***305***	*291*	*249*
0-4	0	2	1	0	0	0
5-9	9	0	1	0	0	0
10-14	0	0	0	0	0	0
15-19	0	0	0	0	0	0
20-24	19	0	0	0	0	0
25-29	28	1	0	0	0	0
30-34	37	9	2	1	1	0
35-39	65	19	8	5	3	1
40-44	74	25	13	10	8	4
45-49	121	58	26	19	16	9
50-54	130	92	52	38	31	18
55-59	65	81	69	57	48	31
60-64	56	57	65	63	58	43
65-69	19	32	46	52	52	46
70-74	0	12	27	35	39	42
75+	0	1	14	27	35	54

Population Including Any Presumed Intensive Construction Activity

All ages	388	325	307	292	250
(18+)	*386*	*324*	*305*	*291*	*249*

3.7 Additional Implications of Results

3.7.1 Construction-Related Population

We have emphasized that it is particularly hard to predict exactly when construction "spikes" on large projects will occur, and the somewhat arbitrary nature of our assumptions about this in scenario specifications. That is why the principal focus of the analysis has been on population linked to relatively "permanent" operational jobs.

But to give some sense of how construction booms can swell population, the following charts show "permanent" population plus additional construction-related population. We do this for the year 2025 instead of 2028, because overall our scenarios hypothesize relatively little construction activity in 2028 and much more in 2025 – thus, 2025 for most islands is not typical of normal conditions but may typify a construction "boom." Given our scenarios, Rota shows this least and Tinian (with both casino-hotel and military projects in the first two scenarios) shows the greatest proportionate impact.

Figure 34: Estimated 2025 Pop. with Construction for Three Scenarios, CNMI-Wide

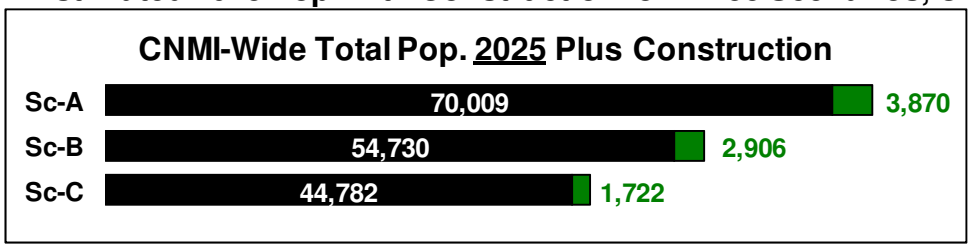


Figure 35: Estimated 2025 Pop. with Construction for Three Scenarios, Saipan

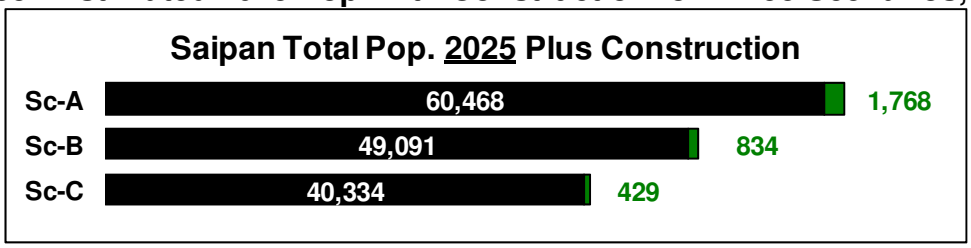


Figure 36: Estimated 2025 Pop. with Construction for Three Scenarios, Tinian

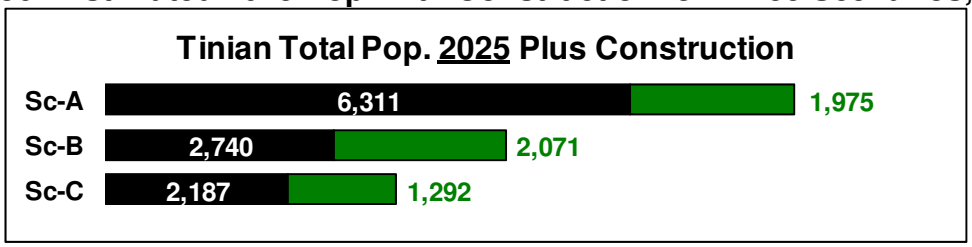
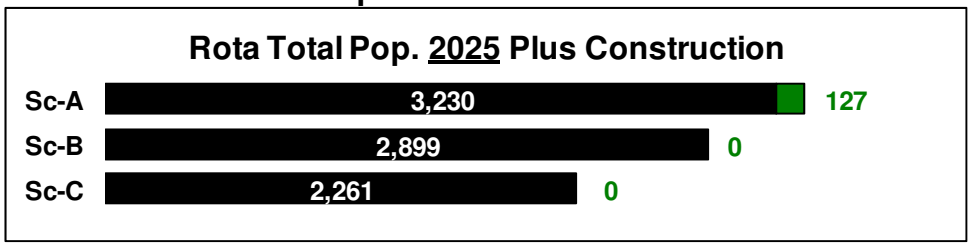


Figure 37: Estimated 2025 Pop. with Construction for Three Scenarios, Rota



As indicated in preceding tables, construction-related population by 2025 is estimated in the Model to consist overwhelmingly of Non-Resident (Foreign) workers and a limited number of dependents for Scenarios A and B, predominantly Non-NMD people for Scenario C. Again, this analysis focuses on major construction "spikes," above and beyond normal construction for housing, warehouses, or commercial buildings.

3.7.2 Population Components as Proportions of Overall Populations

For this final analysis, we return to the target year of 2028 and the regular population linked to relatively permanent operational jobs.

Figure 38 and Figure 39 show the 2028 percentages for each population component implicit in foregoing tables of results. These charts show *percentages*, but note that they are applied to very different estimated *overall population figures*.

- The NMD percentages vary widely over scenarios, but that is because the absolute numbers of NMD residents are estimated to remain relatively constant over scenarios (Section 3.3), given historical evidence of minimal net NMD population response to different economic conditions since 1990. So NMD residents are fairly dominant in Scenario C, but that scenario envisions a depressed economy.

- The Non-NMD "slice of the pie" is roughly similar across scenarios for most geographies, except for Tinian in Scenario C – where it grows due to the assumption of unavailability of CW-1 workers and the other assumption that joint military training activity will bring in some Non-NMD in-migrants.

- The Non-Resident (Foreign) visa worker percentage declines slightly from Scenario A to Scenario B, but then drops sharply for Scenario C, when remaining population is limited to people with H-1 and H-2 visas or other ways of being in the islands.

Figure 38: Population Component Breakdown for Three Scenarios, CNMI-Wide and Saipan

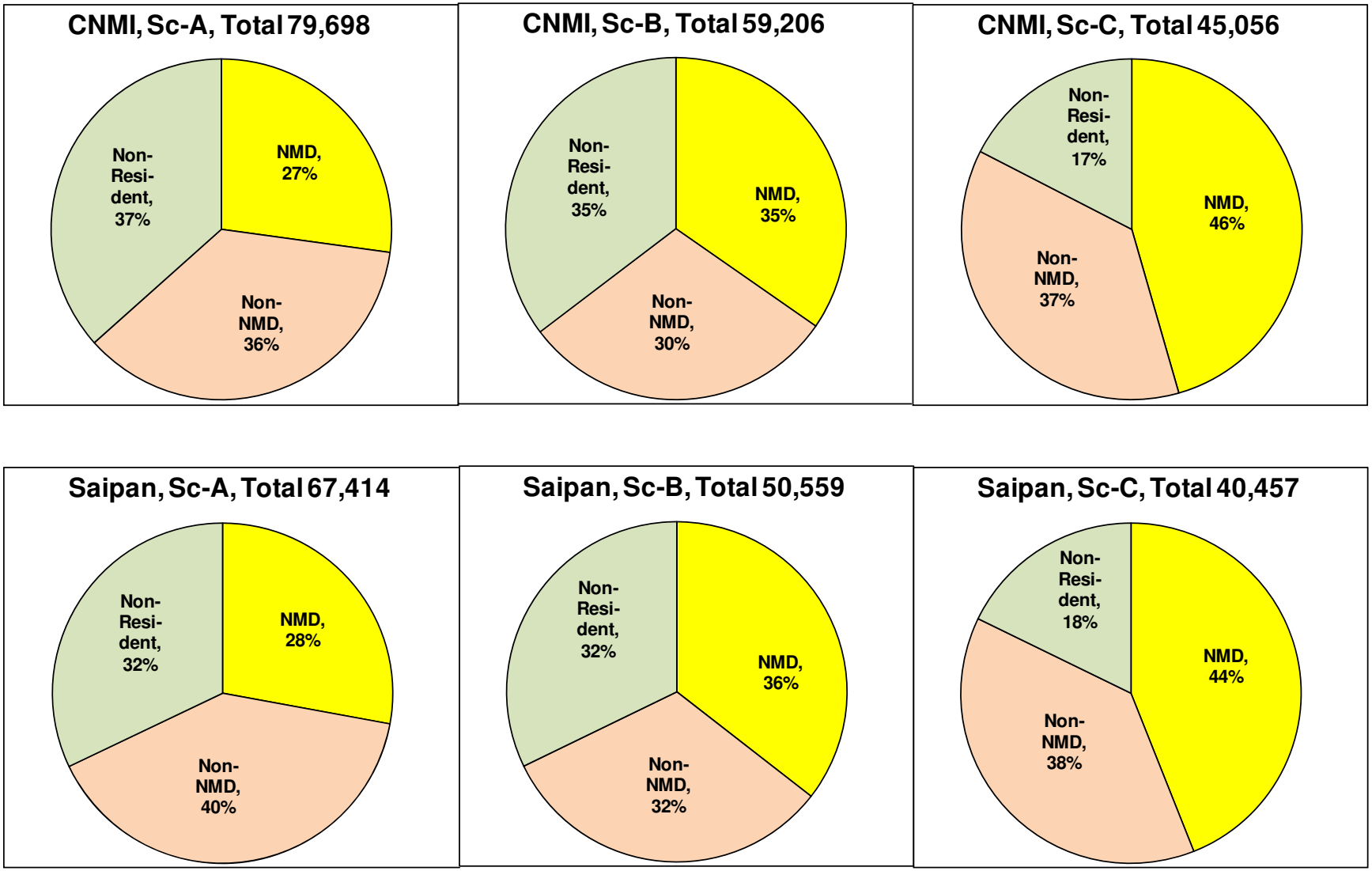
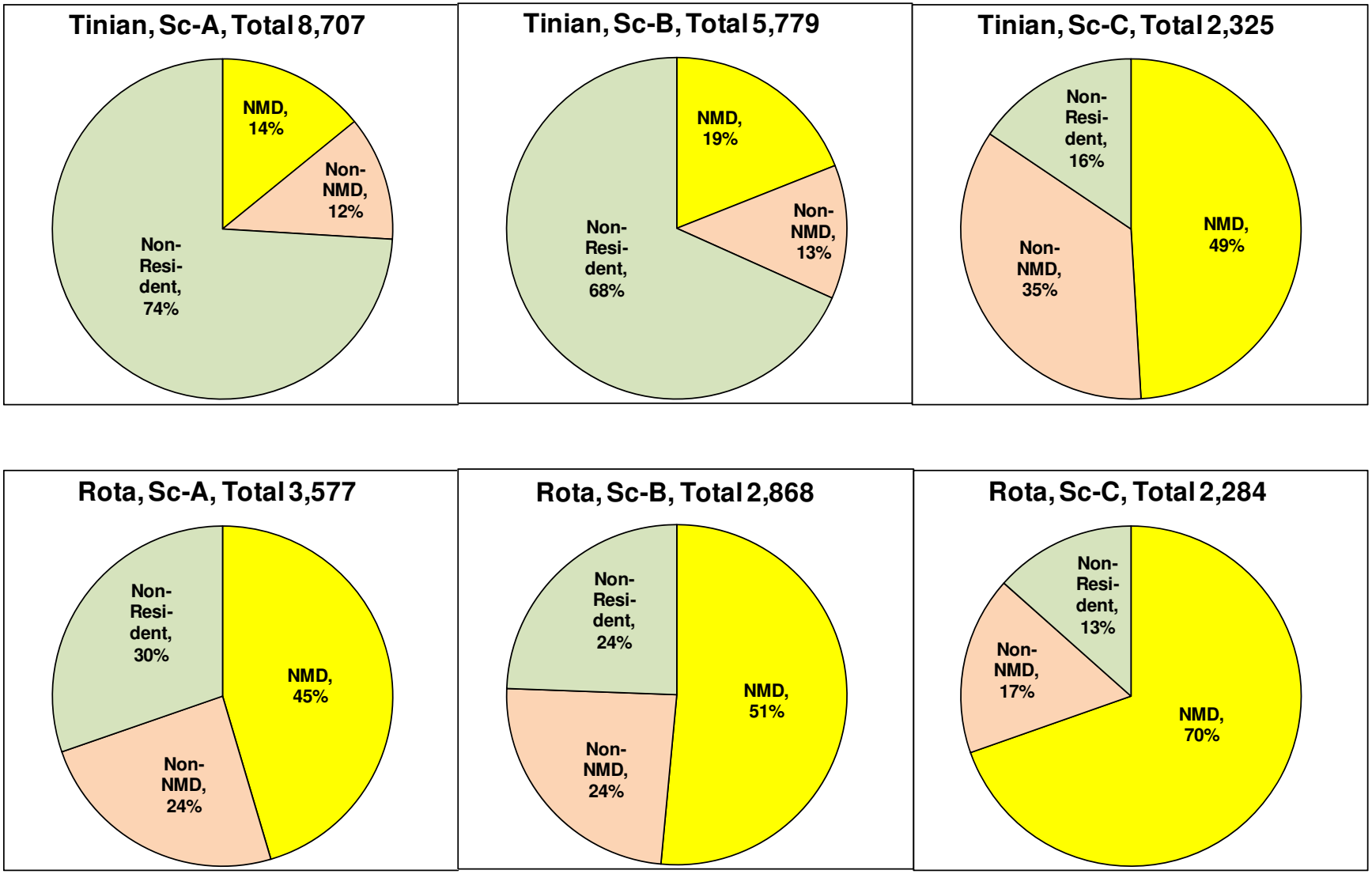


Figure 39: Population Component Breakdown for Three Scenarios, Tinian and Rota



4. SUMMARY OF KEY RESULTS FOR PLANNING PURPOSES

Preceding population results in Chapter 3 were comprehensive and reported in the logical order according to Model structure. This chapter is primarily for the purpose of reiterating and summarizing the particular results of most importance for DPL master planning: (1) estimates of NMD adults eligible for DPL homestead awards; and (2) estimates of total population.

4.1 Eligible NMD Adults

The Model estimates the number of Eligible NMD adults (including those who may already have awards) as the sub-set of total NMD population who are not disqualified due to being married to an NMD spouse and who meet the eligibility criteria of not being current homeowners *and* having household incomes under $70,000.[28] Historical research reported in Chapter 1 (Section 1.4) established that NMD net migration patterns have been much less responsive to changes in economic conditions than other CNMI population groups.

Therefore, overall NMD population and its "eligible" sub-set show much less variation across economic scenarios than will be the case for Total Population in the following section. There are also apparent minor inconsistencies according to scenario (i.e., the highest and lowest estimates over time are not always for the same economic scenarios) that do not appear for total population estimates.

To reiterate, Scenario A is, overall, a High-Growth scenario for each island. Scenario B assumes Moderate Growth (and for Saipan a sort of "status quo" situation in which visitor arrivals will soon plateau at "sustainable" levels), while Scenario C is for Poor to Negative economic conditions associated with ending CW-1 visas.

Figure 40 to Figure 42 show Model estimates for each island, by scenario. For the 2028 target year, Saipan estimates vary from 4,691 to 5,038; Tinian, from 382 minimum to 409 maximum; and Rota, a similar range of from 368 minimum to 421 maximum. On a CNMI-wide base, the 2028 numbers vary from 5,487 to 5,869.

This is a relatively narrow range of estimates, with the lowest estimate representing 93% of the highest estimate for Saipan, 89% for Tinian, and 87% for Rota.

[28] As noted in foregoing Chapter 3, Section 3.4, inflation trends are difficult to predict for CNMI due to lack of data, so it is difficult to tell to what extent Model output numbers may be eroded in outlying future years due to inflation. (However, high inflation can also present challenges to homeownership, so decreases in eligibility due to rising incomes could also be offset by increases in eligibility due to falling ownership rates.) All the assumptions about percentages of NMD population affected by the disqualification/eligibility criteria come from the 2016 Household Income and Expenditure Survey (HIES), and are set forth in the discussion of Model design and assumptions – see Chapter 2, Section 2.1.3.

Figure 40: Summary of Eligible NMD Adult Estimates by Scenario, Saipan

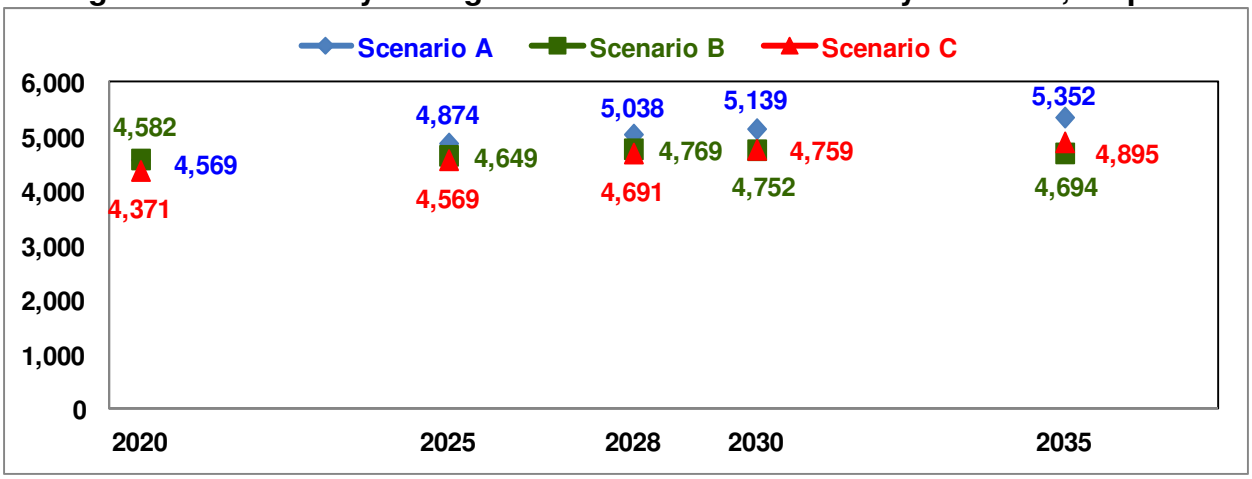


Figure 41: Summary of Eligible NMD Adult Estimates by Scenario, Tinian

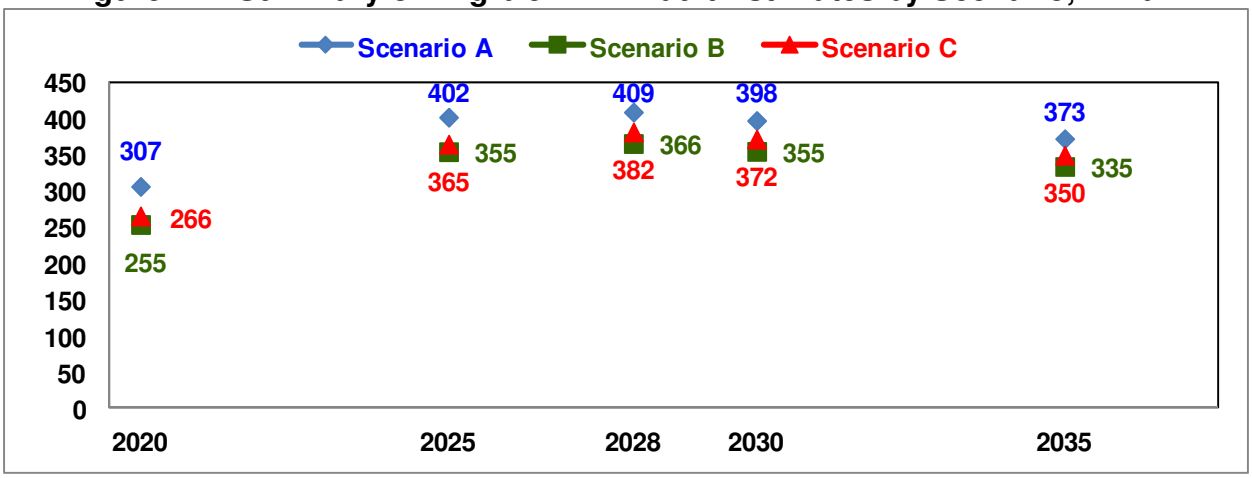
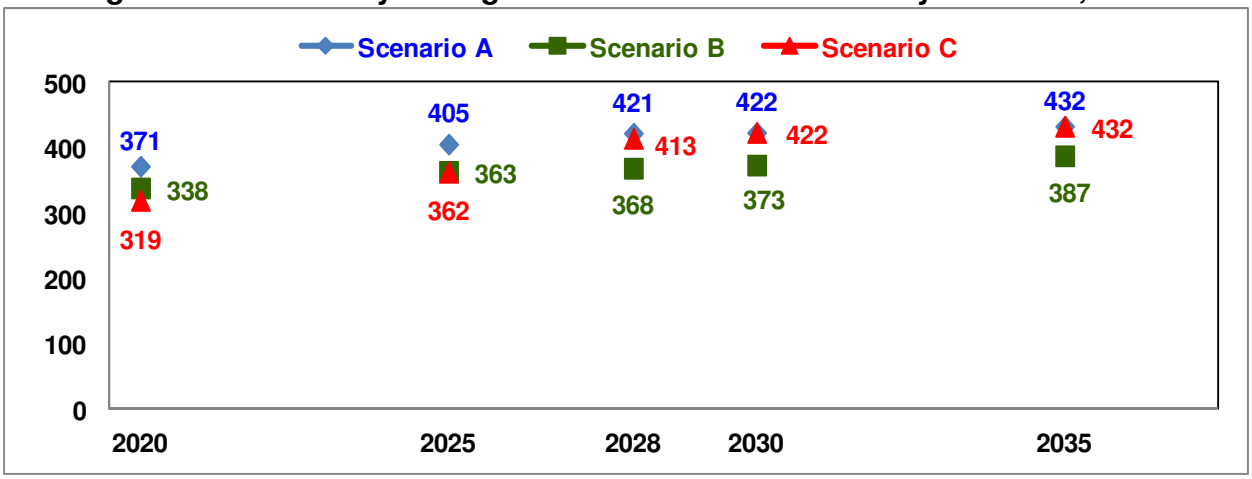


Figure 42: Summary of Eligible NMD Adult Estimates by Scenario, Rota



Not discussed in Chapter 3, but of some import to DPL – there are important differences between these population-based estimates and data obtained from DPL about awards already made. For Saipan, the estimated number of eligible NMD applicants (including any who may already have received awards) ten years from now is far greater than the number of awards as of 2017. But on Tinian and particularly on Rota, there have already been far more awards made than the estimated future number of eligible applicants. The Rota figure is roughly equal to the island's current population.

Table 51: Homestead Awards as of 2017 Versus Estimated 2028 "Eligible NMD"

	Saipan	Tinian	Rota	Total
TOTAL Homesteads Awarded by 2017:	**1,997**	**912**	**2,597**	**5,506**
Elligible NMD Applicants by 2028 (Scenario A)	5,038	409	421	5,869
Elligible NMD Applicants by 2028 (Scenario B)	4,769	366	368	5,503
Elligible NMD Applicants by 2028 (Scenario C)	4,691	382	413	5,487

It should be understood that some of the awards made by DPL may have lapsed (due to death of awardees with no heirs). Additionally, for Saipan, about 400 homesteaders who have received agricultural lots under the Homestead Waiver Act remain eligible for village lots on the island, though without further research there is no way to know if a homesteader has already been awarded both.

4.2 Total Population

Total population was calculated as the sum of specific estimates on each island of three different components: (1) NMD; (2) Non-NMD Residents of CNMI; and (3) (Foreign) Non-Residents. Historical data indicate that population levels for the latter two components – which represent the majority of the CNMI population – have varied much more greatly as prevailing economic conditions changed.

Therefore, the total population levels for different islands show much greater variation according to the economic scenarios. Figure 43 to Figure 45 show these estimates for Saipan, Tinian, and Rota by scenarios. Saipan estimates for 2028 vary from a low of 40,457 to a high of 67,414; Tinian, from 2,325 to 8,707; and Rota, from 2,284 to 3,577. On a CNMI-wide basis, the numbers add to represent a range from 45,066 to 79,698.

These numbers are significantly different by scenario, and that is because of the wide range of economic futures that now appear possible for the Commonwealth. The most optimistic Scenario A – primarily driven by some of the visitor arrival assumptions in the Horwath Report commissioned by the Marianas Visitor Authority – assumes ongoing strong increases in tourism (and, implicitly, some sort of solutions to potential infrastructure and labor constraints, as well as political support by residents).

Figure 43: Summary of Total Population Estimates by Scenario, Saipan

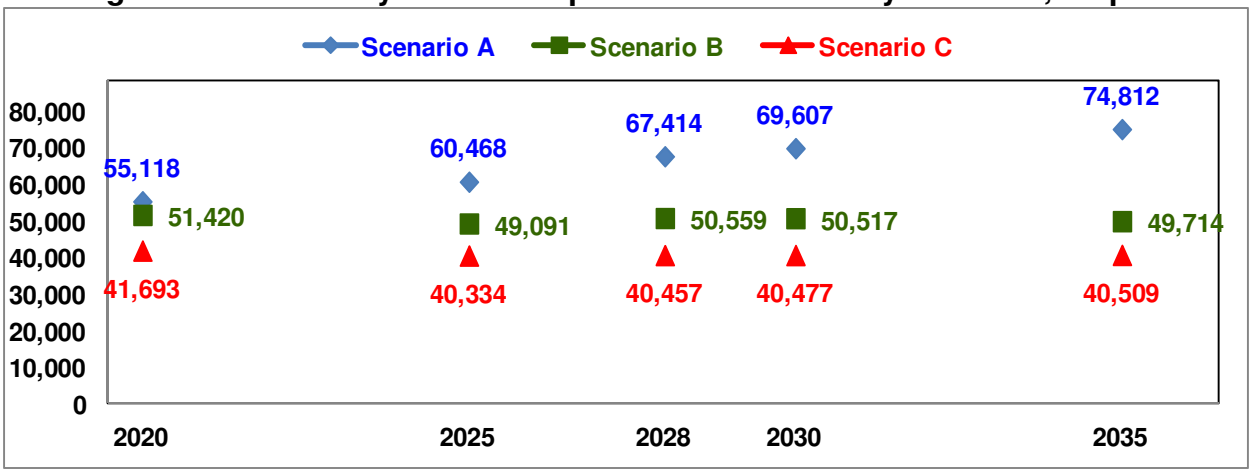


Figure 44: Summary of Total Population Estimates by Scenario, Tinian

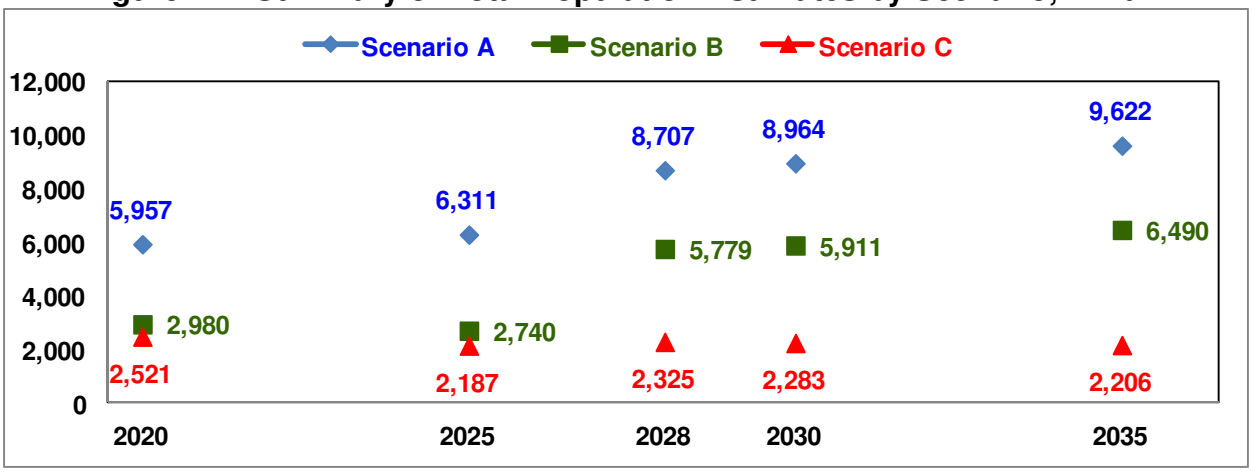
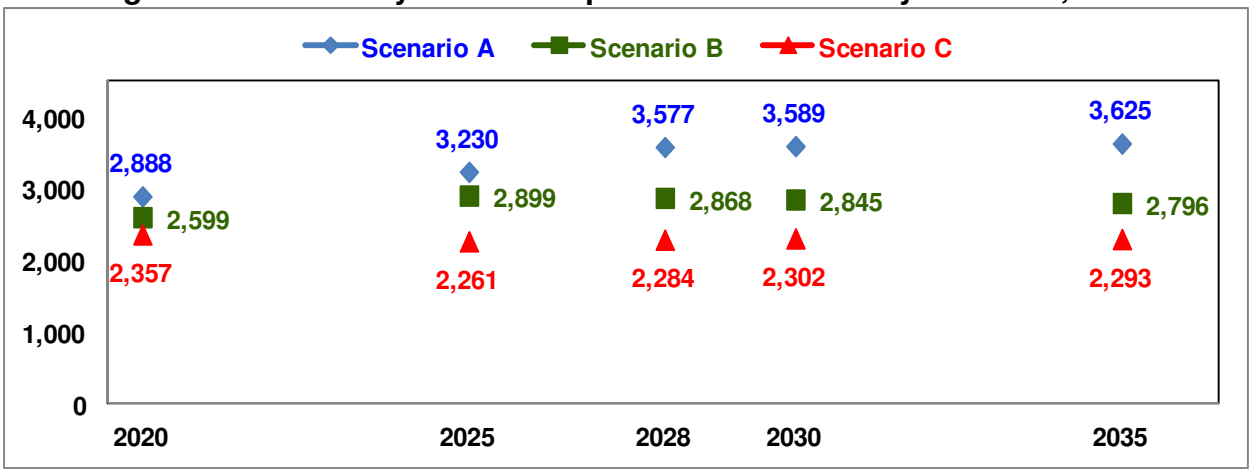


Figure 45: Summary of Total Population Estimates by Scenario, Rota



By contrast, the essentially catastrophic Scenario C is based on an equally possible future, characterized by loss of CW-1 workers and a reduction in tourism equivalent to what could happen if the Chinese market is blocked by elimination of "paroles" for visitors from China.

In this much greater range of possibilities (compared to the Eligible NMD figures previously summarized), the minimal 2028 Scenario C number is 64% of the maximal Scenario A number for Rota, 60% for Saipan, and just 27% for Tinian. The range is relatively greater for Tinian because economic activities proposed for that island – particularly casino-hotels, but also military activities[29] – is so wide, especially in comparison to existing population. These activities could involve labor demand far in excess of the island's supply and so require substantial in-migration.

4.3 Closing Comment: Future Population Data

This report has attempted to stress not only the CNMI's great uncertainty over economic futures, but also data limitation challenges facing Model development and validity. For example, the fundamental issue of "current" (2016) population baseline figures for each island and the Commonwealth as a whole required a judgmental choice between different available estimates, and may not have been accurate.

The Model could be modified and re-used in future years once 2020 Census data become available. However, this assumes that:

- The 2020 Census for the CNMI overall includes the detailed race/ethnic and other characteristics normally gathered in the American Community Survey (ACS). The Census Bureau has not conducted the ACS in the CNMI or American Samoa in inter-censal years – the only two U.S. areas for which ACS numbers have not been collected. It is likely but not certain that the ACS will be done in CNMI in 2020.

- These data will actually be *available* (either as tables or in Public Use Microdata Samples [PUMS]) in ways that permit separating age-sex characteristics for each of the three key population components considered here – i.e., NMD, Non-NMD CNMI Residents, and (Foreign) Non-Residents. That availability needs to be by island. Additionally, for DPL purposes, it would be very useful to have published data that permits identification of Chamorro *and/or* Carolinian age-sex characteristics (in cases where people report two or more race/ethnic categories).

Whether directly or through the Central Statistics Division, we suggest that DPL stay in touch with both the Census Bureau and its Congressional delegate to monitor debates in Congress about adequate funding and questionnaire content for the 2020 Census. These debates involve national budgetary and ideological issues that go far beyond what is fair or useful for CNMI, but it cannot hurt for the Commonwealth's voice to be heard in these decisions.

[29] There are significant questions about the compatibility of Tinian military activities with tourism activities on that island and perhaps other islands as well. See discussions in preceding Section 1.7.1.

Appendix B

Myounghee Noh & Associates, L.L.C.
Environmental Studies and Consulting Services

July 2, 2018

Roy Reyes, Project Manager
Pacific Engineering Group & Services
P.O. Box 502713
Saipan, MP 96950

Dear Mr. Reyes:

Subject: Environmental Support for the DPL Comprehensive Land Use Plan (CLUP)
Commonwealth of the Northern Mariana Islands

Myounghee Noh & Associates, L.L.C. (MNA), conducted a research in support of the CNMI 2018 CLUP. The research aimed to identify lands that may need special handling due to environmental concerns, such as presence of hazardous materials or other special circumstances, i.e. cultural, natural, or biological resources, or unexploded ordnance/munitions of environmental concern. In order to identify sites or areas of environmental concern, MNA conducted research, as follows:

- Reviewed available reports from Joeten Kiyu Public Library and online-published documents
- Reviewed local and federal databases for environmental incidents and conditions in CNMI
- Reviewed historical aerial photographs and topographic maps for interpreting past land use throughout the CNMI
- Review government websites for known or existing cultural, natural, or biological resources
- Conducted interviews

Records were obtained from various sources: commercial (paid) and online databases, publicly available documents online and in a local library, government agencies, and consultants. Information collected were cataloged, sites of concern were mapped by reviewing maps and images provided in the sources, transferring the approximated locations to Google Earth as place marks and boundaries, and transferring the Google Earth provided coordinates to a Geographic Information Systems (GIS) shapefile.

Locations for several sites of concern were not available. For each of those sites, MNA conducted an Internet search to determine the locations. Although the physical locations for some sites could not be determined, the information gathered for the sites was collected and listed in the Records Review Summary Table (Attachment A). The information sources for this research are listed below.

Bureau of Environmental & Coastal Quality (BECQ) Brownfields Hazardous Substances and Petroleum Sites. The CNMI BECQ Division of Environmental Quality (DEQ) maintains a Public Record website, which provides information for sites at which response actions are completed, ongoing, or are planned and accessed at http://cnmideqpublicrecord. weebly.com. The Site Assessment and Remediation(SAR) Branch manages and implements the 104(k) Brownfields (Hazardous Substances & Petroleum), which are funded by grants to inventory, characterize, assess, and provide planning and community involvement related to sites which are contaminated by hazardous substances, pollutants, and/or petroleum. A total of 30 were listed in the BECQ's website with 28 sites of concern. Saipan alone had 23 brownfield sites due to soil contamination from UXO, fuels, illegal dumping, transformer oil, and unknown contaminants.

BECQ Formerly Used Defense Sites (FUDS). The CNMI BECQ DEQ maintains a Public Record website, which provides information for FUDS, and focuses on the assessment and cleanup of contaminated sites that were formerly utilized for military training and testing of weapons. Information for these sites is accessed at http://cnmideqpublicrecord.weebly.com. The Department of Defense (DOD) is responsible for the investigation and environmental restoration

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of these properties that were owned, leased to, or possessed by the United States. Five FUDS-related Saipan sites were listed, and all were considered sites of concern.

Department of Land and Natural Resources (DLNR) Division of Fish and Wildlife (DFW). The CNMI DLNR DFW designates and maintains Marine Protected Areas (MPAs) which are in the ocean or nearshore environment, to protect living, non-living, cultural, and/or natural resources. These MPAs include "No-take" areas and species-specific reserves. The DFW also manages Wildlife Conservation Areas. These areas have been established thorough DFW legislative acts, local laws, and regulations. Wildlife Conservation Areas have various purposes including hiking and nature trails, wildlife viewing, hunting, and other recreational purposes. Information for the MPAs and Wildlife Conservation Areas are accessible at http://www.cnmi-dfw.com/index.php. Marine protected and wildlife conservation areas were documented. A total of 21 sites were listed; with nine sensitive sites on Saipan, one on Tinian, four on Rota, one on Uracas/Faralion de Pajaros, one on Maug, and one on Asuncion.

CNMI Department of Public Lands (DPL). Various information was available online at http://www.dpl.gov.mp/, including landfills, power plants, and wastewater treatment plants. Previous and current land use planning documents were also available as well as an electronic copy of investigation reports of FUDS and Environmental Impact Statements (EIS). A total of 46 sites were listed, with 32 sites of concern.

DOD National Environmental Policy Act (NEPA) Documents. The CNMI Joint Military EIS/Overseas Environmental Impact Statement (EIS) was accessible from www.cnmijointmilitarytrainingeis.com, and Mariana Islands Training and Testing (MITT) EIS/OEIS at https://mitt-eis.com/Documents/2015-Mariana-Islands-Training-and-Testing-EIS-OEIS-Documents/Final-EIS-OEIS.

EDR. EDR is a company that provides government records data and historical documents. An EDR ZIP/PLUS Report was ordered for each island through the EDR website at http://edrnet.com. The ZIP/PLUS Report includes data for sites on standard and additional environmental records and EDR high-risk historical records. A total of 420 sites were listed in the EDR database, and 241 were determined to be sites of concern. Saipan alone had 385 listings with 218 sites of concern. Tinian and Rota have 11 and 12 sites of concern, respectively.

Environmental Investigations. Information regarding individual projects performed in CNMI by other consultants was sought. Phase I and II Environmental Site Assessments (ESA) and transformer investigations were performed on Saipan, and UXO clearance and harbor master plans were available for Tinian.

EPA Facility Registry Service (FRS). The FRS provides data to support EPA's mission of protecting human health and the environment. A search was enabled by entering zip code at https://www.epa.gov/enviro/facility-registry-service-frs. Over 400 facilities were listed; however, individual links were not researched.

EPA Toxic Release Inventory (TRI). The TRI provides chemical release information which involved emissions to the air or water. The latest data are from the year 2016 and found at https://www.epa.gov/toxics-release-inventory-tri-program. Eight TRI sites were listed with a total onsite release of over 15,000 pounds of toxic chemicals. Detailed research was not conducted.

Interviews. Interviews were conducted to gain greater access to and understanding of the environmental hazards and cultural and natural resources. Don Farrell (Tinian), Paul Manglona (Rota), Joey P. San Nicolas (Tinian), Tony Benavente (Saipan), John Scott (AMPRO), John Ford (Cardno), Derek Yasaka (WCP), and Robert Jordan (Saipan) were interviewed by MNA.

Joeten Kiyu Library. The library is located on Insatto Street, Saipan, MP 96950. Hard copy environmental documents were archived in the special reference room in the library. The archive is ordinarily locked, and access is allowed upon request. More than 13 documents, including EIS, FUDS, munitions response sites, and investigation reports, were scanned and reviewed.

U.S. Army Corps of Engineers (USACE) FUDS. The USACE maintains a list of FUDS, sites formerly used by the DOD for military training and weaponry testing and storage. The DOD is responsible for the environmental restoration of properties that were formerly owned, leased to, or possessed by the U.S. DOD. The CNMI FUDS list is accessible at https://www.usace.army.mil/Missions/Environmental/Formerly-Used-Defense-Sites/FUDS-Inventory. A total of 25 FUDS locations were listed (22 on Saipan and three on Rota), and all were considered sites of concern.

U.S. Government Accountability Office (GAO). A list of sites for potential inclusion in the FUDS program is accessible at www.gao.gov/gao-01-1012sp/CN.html. The sites were listed according to eligibility and hazards. There were 33 properties listed for potential inclusion in the FUDS program; all were considered sites of concern.

U.S. National Renewable Energy Laboratory (NREL). The *CNMI Strategic Energy Plan* (2013), *Energy Efficiency and Renewable Energy Efforts in the Pacific Territories and Freely Associates States* (2013), *CNMI Initial Technical Assessment Report* (2011), and *CNMI Energy Action Plan* (2013) were reviewed. The NREL documents are accessible at https://www.nrel.gov.

U.S. Geological Survey (USGS). The USGS published *Ground-Water Resources of Saipan, Commonwealth of the Northern Mariana Islands*, a 2003 report which included data and analysis on saturated limestone; rainfall, ground-water withdrawal, and chloride concentrations in well water; changes in thickness of the freshwater lens; water-level and spring flow records; water-table configuration and directions of groundwater flow; and thickness and seaward boundary of the freshwater lens. The report is accessible at https://pubs.usgs.gov/wri/wri034178/htdocs/wrir03-4178.html.

Volcano Hazard Research. MNA was requested by the CLUP team (CHP) to conduct a research on volcanic hazards in the CNMI, due to evident interests during the public meetings held as part of the CLUP update process. The USGS Volcano Hazards Program develops long-range volcano hazard assessments worldwide. Additionally, an index of existing active and potentially active volcanos and associated hazards are cataloged in an attempt to provide warnings of potential volcanic hazards. Research on volcanic hazards in the CNMI is summarized in Attachment D, and can be used to better understand volcanic hazards present throughout the CNMI.

Attached are series of summary tables and narratives, including review summaries of printed / electronic records, historical aerial photographs and topographic maps, interviews conducted, volcano related hazards in the CNMI, assumptions and limitations, and data gaps as of 27 June 2018. Additionally, MNA provides GIS shape files documenting the sites or areas of concern identified through the research.

ASSUMPTIONS AND LIMITATIONS

Assumptions:

- The findings presented in this report are based upon the assumption that reasonably ascertainable and relevant information pertaining to the environmental conditions of public lands were made available to MNA during the assessment.
- Information obtained from government agencies and other resources is presumed to be accurate and updated.
- Information collected in interviews is collected in "good faith" and believed to be true and accurate to the best knowledge of the interviewee.

- For sites where a latitude/longitude location was not provided or available, MNA identified the site as a point or a polygon based on available information. These points or polygons are approximate locations.
- The sites that were of no concern were not mapped.

Limitations:

- Limited information was available for northern islands of CNMI. Information was not available for the historical land uses on Pagan and Anatahan (and other islands) by the Japanese military during 1910-1945.
- MNA cannot ensure the accuracy of the historical or regulatory information.
- The information obtained for this research is used without extraordinary verification (no site reconnaissance was conducted to confirm the locations of sites of concern). It is possible that other information exists and is discovered, or environmental conditions change subsequent to the submittal of this report, to which MNA shall not be held responsible for exclusion.
- MNA submitted FOIA request for all FUDS sites; however, MNA was referred to the CNMI DPL for documents.
- Those sites listed as "not mapped" in the Records Review Summary Tables (RRST) were not mapped due to insufficient or incorrect data.

Please reach us at 808-484-9214 or jessica@noh-associates.com should you have any questions.

Sincerely,

Jessica Walsh, Environmental Planner
Project Manager

ATTACHMENTS:

Attachment A	Records Review Summary Tables
Attachment B	Historical Aerial Photo and Topographic Map Review Summary
Attachment C	Interview Summary
Attachment D	Volcano Hazard Research Summary

ATTACHMENT A

RECORDS REVIEW SUMMARY TABLES

Doc #	Doc Name	Reference Source	Summary of Document	Type	Google Earth Link	Island	More Info Needed? (Y/N)	Site of Interest (Y/N)
14	APEC Previous Environmental Assessments	APEC http://alliedpacificenviron.com/EnvironmentalAssessprj.htm	A Phase II ESA was conducted for Commonwealth Utilities Corp. to provide and initial overview of the environmental condition of the site, specifically in regards to the presence of any hazardous substances or petroleum contaminants.	Power plant	CUC Power Plants 1 & 2 Phase II ESA, Lower Base	Saipan	N	Y
14	APEC Previous Environmental Assessments	APEC http://alliedpacificenviron.com/EnvironmentalAssessprj.htm	A Phase I ESA was conducted at the site for Mobil Oil Guam, Inc.	Phase I ESA	Lot 22700-R1, Kagman	Saipan	Y	
14	APEC Previous Environmental Assessments	APEC http://alliedpacificenviron.com/EnvironmentalAssessprj.htm	"Investigation of Potential PCB-containing Oil in Electric Transformers at the Saipan International Airport." An environmental investigation of transformers stored at the Saipan International Airport for CNMI Commonwealth Ports Authority.	Potential Soil Contamination	Saipan International Airport	Saipan	N	Y
14	APEC Previous Environmental Assessments	APEC http://alliedpacificenviron.com/EnvironmentalAssessprj.htm	A Phase I and limited Phase II Baseline Investigation was conducted. The Phase II included an assessment of the horizontal and vertical extent of heavy metals, PCBs, TPH, and chlorinated hydrocarbons contamination identified in the Phase I ESA.	Power plant	Puerto Rico Power Plant	Saipan	N	Y
45	Tinian Harbor Master Plan	AMPRO	Tinian Harbor Master Plan details plan for improvements to harbor to support tourist industry. Specific mention of House of Taga, a pre-historic site containing latte stones in need of protection from weather and other deterioration.	Historic site	House of Taga	Tinian	N	Y
46	Unexploded Ordnance Clearance US Fragmentation Bombs, Port of Tinian	AMPRO	This report summarizes work accomplished by Ampro, Inc. in the removal of UXO from the bottom of Tinian Harbor in the area of the Tinian Ferry landing in October and November 2000.	UST	Tinian Harbor UXO	Tinian	N	Y

Doc #	Doc Name	Reference Source	Summary of Document	Type	Google Earth Link	Island	More Info Needed? (Y/N)	Site of Interest (Y/N)
18	CNMI BECQ-DEQ Brownfields: Public Record: Formerly Used Defense Sites - Former Kagman Airfield	CNMI BECQ-DEQ Brownfields: Public Record: Formerly Used Defense Sites http://cnmideqpublicrecord.weebly.com/formerly-used-defense-sites.html	Kagman Airfield (also known as East Field) was situated at the southeastern end of the Island of Saipan on Kagman Peninsula about 4 miles northeast of the Saipan International Airport. A wide and relatively flat limestone platform approximately 200 feet above sea level, the peninsula terminates to the southeast in a hilly headland. The Kagman Airfield dump site is situated within a natural sinkhole that occupies about 4 to 5 acres of a larger rectangular parcel located about 500 feet north-northwest of the former east-west-oriented airfield runway which is now a portion of Kagman Road. The undeveloped parcel was previously utilized as pasture land, but is presently untended and densely vegetated. (Kagman Airfield Proposed Plan, March 2007). The entire site had been excavated as of Sept. 2007.	FUDS-soil contamination	Kagman Airfield	Saipan	N	Y
18	CNMI BECQ-DEQ Brownfields: Public Record: Formerly Used Defense Sites - Marpi Point Field	CNMI BECQ-DEQ Brownfields: Public Record: Formerly Used Defense Sites http://cnmideqpublicrecord.weebly.com/formerly-used-defense-sites.html	The Remedial Investigation/Feasiblity Study (RI/FS) fieldwork was completed in December 2015 and included digital geophysical mapping (DGM) to identify subsurface metallic anomalies. The presence of both surface and subsurface MEC was confirmed as well as the nature and extent distribution throughout the MRS. Sixty-six hazardous MEC items were recovered from within the MRS; 33 on the surface. In addition, elevated MEC contaminants detected during the site investigation were further evaluated revealing elevated levels of lead and zinc in MRS soil as well as trace explosives in some areas. The RI/FS data, in conjunction with other advanced classification techniques conducted in tandem as part of a Treatability Study, will be used to recommend viable and cost-effective remedial options for the MRS as part of the current FS. (USACE)	FUDS-MEC	Marpi Point Field	Saipan	N	Y
18	CNMI BECQ-DEQ Brownfields: Public Record: Formerly Used Defense Sites - Naftan Ordnance Disposal/Naftan Bomb Storage	CNMI BECQ-DEQ Brownfields: Public Record: Formerly Used Defense Sites http://cnmideqpublicrecord.weebly.com/formerly-used-defense-sites.html	The RI/FS was conducted to characterize the nature and extent of MEC at both the 604-acre NBS MRS and the 9-acre NOD MRS and will be used to evaluate viable and cost-effective remedial options as part of the pending FS. One hundred forty-two hazardous MEC items were recovered from within the NBS MRS; 118 on the surface. In addition, three of the surface MEC included intact 500lb incendiary bombs near the Hawaiian Rock facility. Elevated MEC contaminants detected during the SI were further evaluated confirming concentrations of antimony, barium, copper, lead and zinc in soil above either human health or ecological risk levels. For the NOD MRS, soil samples resulted in similar contaminants as observed in the NBS MRS. A total of 54 MEC items were recovered during intrusive investigations to include 22 on the surface.	FUDS-MEC	Naftan Ordnance Disposal/Naftan Bomb Storage		N	Y
18	CNMI BECQ-DEQ Brownfields: Public Record: Formerly Used Defense Sites - Tanapag Fuel Farm	CNMI BECQ-DEQ Brownfields: Public Record: Formerly Used Defense Sites http://cnmideqpublicrecord.weebly.com/formerly-used-defense-sites.html	The Tanapag Fuel Farm project site consists of two former tank farm areas located approximately 0.5 miles apart on Saipan. The project site was historically part of the Navy's Tanapag Naval Operating Base, which was active between 1944 and 1950. Forty-two ASTs were located on a 96-acre site inTanapag, and four ASTs were located on a separate 4.8 acre site near the village of Sadog Tasi. In 2006, the EPA removed six ASTs as part of a response action. Currently, 13 tanks in various condition remain at tTanapag, and four tanks remain in Sadog Tasi. According to the RI, it has identified that six tank sites (#5C, 17, 37, 38, 39, and 42) with chemicals of potential concern (COPCs) in soil at concentrations exceeding the Pacific Basin Environmental Screening Levels (PBESLs). However, COPCs were not identified in the groundwater.	FUDS-ASTs	Tanapag Fuel Farm	Saipan	N	Y

Doc #	Doc Name	Reference Source	Summary of Document	Type	Google Earth Link	Island	More Info Needed? (Y/N)	Site of Interest (Y/N)
18	CNMI BECQ-DEQ Brownfields: Public Record: Formerly Used Defense Sites -Kobler Naval Supply Center	CNMI BECQ-DEQ Brownfields: Public Record: Formerly Used Defense Sites http://cnmideqpublicrecord.weebly.com/formerly-used-defense-sites.html	The Kobler Naval Supply Center project area is located at the southwestern end of Saipan in the CNMI. The project area consists of two separate but adjoining sites located to the north and south of As Perdido Road (Route 32). The first site encompasses an area of approximately 64 acres in the Fina Sisu area (north of As Perdido Road), while the second site encompasses an area of approximately 32 acres in the Chalan Piao/As Perdido area (south of As Perdido Road). The 64-acre site in the Fina Sisu area contained nine 10,000-barrel ASTs (Tank sites 1 - 9) and was referred to as the Chalan Kanoa Tank Farm. The 32-acre site in the Chalan Piao/As Perdido area was referred to as the Old South Tank Farm and contained nine 1,000 barrel ASTs (Tank sites 10 - 18). Both sites are located approximately 1.25 miles northwest of Saipan International Airport.	FUDS-ASTs	Kobler Naval Supply Center	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Aguiguan Island	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	On 11 June 1944 at the onset of WW II, preliminary aerial bombing began in the Marianas by the U.S. forces. Given the close proximity to Saipan and Tinian, Aguijan was most likely a subject target during the bombing. A Phase I ESA conducted in July 2014 by APEC indicates that there were unexploded ordinance (UXO) encountered on Aguijan during a site reconnaissance on 25 July 2014.	UXO	Aguiguan Island	NI: Aguiguan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Angel Falig Property	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	It is part of the Tanapag Fuel Farm (TFF) site which is listed in the FUDS inventory. The property is a 1.48 acre which makes up 96-acre of the TFF site in Tanapag Village. It contained as many as 42 above-ground fuel storage tanks ranging in capacity between 1,000 and 10,000 barrels (WCP, 2004). The Falig Property is situated between two land parcels where Tank #13 and Tank #14 were located. The two tanks were removed. A Phase I ESA was conducted in 2011 and identified the following RECs: potential impact from the former fuel tank farm, unlabeled deteriorating 55-gallon drums and containers, and potential UXO.	Soil Contamination, UXO	Angel Falig Property	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Clean Earth	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The site is currently being used as a storage yard for junk cars, containers, tires, scrap metal, construction equipment, roadwork equipment, and drums. Many of the drums were labeled Mobil Aviation Gasoline (AVGAS 100/130) and appeared to be full. The drums, mostly located atop earthen ground, were in varied states of condition. Some soil staining and discoloration were observed in areas around the drums and stockpiled soil. Used car batteries were also observed in various locations. There is one portable water AST and one empty 1,500-gallon diesel AST. The diesel AST is located within a concrete berm area. During the site visit, a pool of black liquid was observed at the discharge side of the drain for this pad. It is unclear if the AST is located on the Clean Earth property.	Soil contamination, abandoned drums/ASTs	Clean Earth	Saipan	N	Y

Doc #	Doc Name	Reference Source	Summary of Document	Type	Google Earth Link	Island	More Info Needed? (Y/N)	Site of Interest (Y/N)
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Concorde Garment Warehouse	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The site was once known as Kim's Auto Shop. After Kim's Auto Shop vacated the property, it was then leased to the Concorde Garment facility. Concorde Garment utilized the site as a storage facility. In 2006 DEQ inspected the site and found several drums of Trichloroethylene (TCE) were improperly stored onsite. The drums were deteriorating due to improper storage conditions and may have potentially leaked into the ground surface. DEQ ordered that DPL and Concorde sample the site citing the CNMI Harmful Substance Cleanup Regulations. Sampling was conducted in 2009. The results have shown that the contamination were below the CNMI Pacific Basin Environmenta Screening Levels (PBESL).	Soil contamination, abandoned drums	Concord Garment Warehouse	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-CPA Buried Drum Site	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The CPA Buried Drum Site is located at the Saipan International Airport, known as lot 026 K 011 Parcel "B". A Phase I ESA conducted in 2009 identified abandoned drums and UXO as RECs.	Soil contamination, abandoned drums, UXO	CPA Buried Drum Site Lot 026 K 011 Parcel B	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-CPA Proposed Commercial Site	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	Located on former Isley Airfield. Phase I and II concerns were potential petroleum product contamination from adjacent CPA Drum Site. Benzo(a)pyrene and arsenic were only COPC detected above residential ESLs.	Soil contamination	CPA Proposed Commercial Site Lot 028 K11	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-CUC Isley Field	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The site is currently used by the CUC to store drums of new and used oil utilized at the CUC Power Plants 1 and 2, a derelict generator, two large ASTs (one beamed, one not), open drums containing petroleum contaminated fill material, and several PCB containing transformers and drums that appear to be leaking. Site inspections conducted in 2005 and 2006 recorded a very large number (over 200) of transformers stored on site. The majority were non-PCB containing, but some containing PCBs and others were unlabeled. The number of transformers stored on site has been greatly reduced since then. A large surface stain in the northeastern part of the site is clearly visible in the 2005 satellite image. Surface stains, and staining around the site drain, located at the northeast corner of the site, indicate surface and potential subsurface contamination by petroleum products and PCB-containing oils. No other hazardous substances were observed on site.	Possible soil contamination	CUC Isley Field Lot 028 K 09	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-CUC Power Plants 1 & 2	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	Petroleum products on site, including fuel oil, lube oil, and waste oil, are stored in various ASTs with a combined storage capacity of 3,066,000 gallons. Additionally as of 2007, there were approximately 1,000 55-gallon drums containing petroleum products stored on the southwest corner of the property. Approximately 75% of these drums contained used lube oil, and the remaining 25% contain oil contaminated coral absorbent material. There is potential for contaminant migration from some of the surrounding up-gradient properties to the east of the property via surface water runoff and sub-surface migration. Some of the RECs included clogged storm drains, oily surface stains, and sludge buildup along the southeast perimeter of Power Plant 1, evidence of a malfunctioning drainage system, etc.	ASTs, soil contamination	CUC Power Plants 1 & 2 Lot 205 E 01	Saipan	N	Y

Doc #	Doc Name	Reference Source	Summary of Document	Type	Google Earth Link	Island	More Info Needed? (Y/N)	Site of Interest (Y/N)
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-CUC Site	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The subject site was used to store fuel for the generators. There were four yellow 4,300 gallon ASTs, that were used as the primary source of fuel storage and were the first tanks to be installed in teh 1960s. These four tanks were reportedly used to store diesel fuel for an adjacent power plant during the naval occupation of the CNMI and CUC operation of the power plant. Around the 1970s, two 20,000 tanks were installed. Three potable tanks with a capacity of 6,000 gallons each, were installed between 1986 and 1987. These tanks were used to store diesel fuel.	ASTs, soil contamination	Former CUC Storage Site Tract #44-14	Tinian	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-DLNR Fish & Wildlife Building	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	A fuel transfer pipeline operated by CUC runs north-to-south along the western edge of the property. Based on the findings during a site reconnaissance, a mound of asphaltic emulsion tar (AET) was observed on site. However, there was no evidence of migration of the AET, nor UXO or other explosive items or evidence of contaminant migration from off site sources (APEC, 2008).	Soil contamination	DLNR Fish & Wildlife Building	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Edoni FUDS	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The Edoni Site is approximately 7.43 acres with a 1.4 acre burrow pit which the U.S. Military used as a waste disposal dump site. At the site, military vehicle parts, empty cylinder gas tanks and other debris were dumped into the pit. The pit is also contaminated with PCB tainted soil and lead contaminated soil. The site is located in a densely vegetated area surrounded by residential homes. The Marianas Public Lands Authority has proposed to develop this parcel of public land for residential homestead. However, the proposed project has been put on hold due to the current condition of the site.	Soil contamination	Edoni Site Lot 27-12	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Former Cow Town Site	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The former Cow Town Site is currently unoccupied. The site is situated in approximately 11.86 acres of public land in the Marpi area. The Saipan Cattle Company Inc. (SCCI) used the property until 10 September 1985 then SCCI acquired the property to develop and operate a “Wild West” style recreational facility with rodeo shows, cart trail rides, etc. The SCCI’s lease on the property was terminated on 13 September 1996. In January 2014, DEQ followed up on a report of illegal dumping and disposal of used oil drums at one of the abandoned building at the site. The inspection discovered 11 drums in a building with some badly corroded and waste oil was released into the environment. Since the discovery, the site has been barricaded with locks and chains and public access is not permitted.	Illegal dumping	Former Cow Town Site Tract 034 A 01	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Former USAF PACBAR 11 Radar Station	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The former Radar Station site is located in the As Matuis Village, Saipan, CNMI. On 26 August 2013, DEQ conducted an inspection of a reported illegal disposal of about 25 drums of used oil in one of the abandoned buildings. Confirming the illega disposal, some of the drums appeared old while others seemed to be in adequate conditions, stock piled inside the building.	Illegal dumping	Former USAF PACBAR 11 Radar Station Tract 009 C 06	Saipan	N	Y

Doc #	Doc Name	Reference Source	Summary of Document	Type	Google Earth Link	Island	More Info Needed? (Y/N)	Site of Interest (Y/N)
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-He Cheng Corp.	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The site has been previously used as a lumber business, a feed storage, and a screen printing facility in the past. A Phase I ESA was conducted in 2010. During the site reconnaissance, silk screen related wastes were noticed being discharged into an Individual Wastewater Disposal System (IDWS) cesspool. In addition, three 55-gallon drums were found on site that used to contain dyes, paints, inks, and solvents. Results revealed that there was no evidence to conclude that the site had been impacted by the past uses. With the following Recognized Environmental Conditions (RECs) identified in the Phase I ESA report, they were addressed in the Phase II ESA with samples of the surface and sub-surface soil were collected.	Soil contamination, abandoned drums	He Cheng Corp Lot TR. 22857-14-R2	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Joenel's Auto Repair Shop	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	Joenel's Auto Repair Shop conducted auto repairs, engine repairs, and painting and was found to have stored lead-acid batteries, junk cars, and drums of used oil throughout the site and according to the inventory, soil staining in the general area that was observed may have contributed to the potential contamination onsite. In 2010, a Phase I ESA was conducted at the site and found four 55-gallon drums filled with petroleum stored in a secondary containment and two 55-gallon drums containing unknown products. A Phase II ESA was conducted in 2012. The EA found deteriorating tires, automotive parts, a vehicle, and construction debris inside a storm water drainage ditch. Metals and petroleum hydrocarbon fuels may have impacted soil within the storm water drainage ditch, a discharge of petroleum fuel occurred near the drum storage area located near the northeast portion of the subject site as evidence by soil staining.	Soil contamination, abandoned drums	Joenel's Auto Repair Shop Lot No. 397	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-KV-1 Site	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The site is within the Kobler well field aquifer, which is one of largest well fields on the island. Historically, during the Japanese occupation of Saipan, the site may have been farmed for sugar cane as there was a large sugar cane mill operation at the time. Free product, previously identified as avgas, have been documented in the KV-1 well located in southern Saipan. The likely source is previous military operations on the island during the World War II era, but the nature and location of the source are unknown. The KV-1 well lies within the Kobler Wellfield, an area where the aquifer is used as a drinking water source for the Island of Saipan. In 2005, DEQ extracted around 3 gallons of the fuel product from the KV-1 exploratory well. In 2007 and 2009, DEQ and EPA installed monitoring wells for monitoring the plume and development of a site conceptual model for the site. At the present time, the site has eight monitoring wells installed for petroleum plume monitoring. The most recent groundwater data from 2009 ind that the petroleum plume is moving towards the well fields within the Kobler aquifer.	Groundwater Contamination	KV-1 Site	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Kintol Site	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The Jerry Kintol property is part of the KV-1 groundwater contamination site located in the Koblerville area consisting of both public and private lands. The KV-1 site is currently still under investigation conducted by EPA Region 9 and DEQ to determine the extent of the groundwater contamination. The contamination was first discovered in 1991 when the Commonwealth Utilities Corporation was drilling a groundwater exploratory well in the area when fuel odor was emanating out from the bore hole.	Groundwater Contamination	Kintol Site Lot 036 I 03	Saipan	N	Y

Doc #	Doc Name	Reference Source	Summary of Document	Type	Google Earth Link	Island	More Info Needed? (Y/N)	Site of Interest (Y/N)
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Lau Lau Eco-Tourism Nature Trail	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The site is proposed for recreational activities (eco-tourism nature trail), which is approximately 261 acres. The subject site was used during the Japanese occupation (1914-1944) for the cultivation of sugarcane. As part of the sugarcane operation, a railroad track ran through the site which supports the transportation of sugarcane by train throughout the island. There is reason to believe that pesticides were used for the protection of this valuable commercial crop. This site borders with the former Kagman Airfield which had bomb bunkers or revetments for ordnance storage. A large canon gun is found within the site that was probably used during WWII. All evidence suggests the possibility that UXOs may be present at the site.	Soil contamination, UXO	Lau Lau Trail Tract 41-2	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Managaha Island	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	Using Brownfields 128(a) funding, a cleanup was conducted in 2014 to remove the pesticide-contaminated soil, buried rusty drums, as well as discarded marine batteries from two small isolated areas. Forty-two cubic yards of pesticide-contaminated soil, 23 rusted drums, and 17 discarded marine batteries were excavated and removed. The confirmation soil sample results produced non-detect results for COPC.	Soil contamination	Managaha Island	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Masalog Ridge	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The size of the area of interest is about 292 acres, which is part of a largest ordnance storage depot. The ordnance storage area was extensive, consisting of over a hundred open revetments with unknown number of ordnance scattered throughout the area.	UXO	Masalog Ridge	Tinian	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Mayor's Old Office Building	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The facility is now the heavy equipment shop for the Office of the Mayor of Saipan (MOS) . The facility is actively used as a maintenance yard, machine shop, and storage area for junk vehicles. The DEQ received complaints regarding illegally dumped drums of used oil that were stored at the MOS Heavy Equipment Shop. Over time, the amount of used oil drums stored had accumulated over its storage capacity, and already with the drums at various stages of deterioration, they posed a threat of potential release.	Soil contamination, abandoned drums	Mayor's Old Office Building	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-MOBIL Susupe Station	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The MOBIL Susupe project was conducted to remove leaking underground storage tanks. A 4,000 gallon Diesel UST and a 1,500 gallon Kerosene UST were removed. Soil samples and water samples were taken. Laboratory analysis indicated non-detectable concentrations of TPH for gasoline and kerosene, meaning that these samples did not exceed threshold numbers. The site has remained a Mobil gas station to the present day.	LUST	MOBIL Susupe Station	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Myungshin Kim Site	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The Site previously operated as an automobile service station. Three USTs were originally installed at the Site in 1984, including one 4,000 gallon gasoline UST, one 3,000-gallon gasoline UST, and one 2,000-gallon diesel UST. The USTs are currently out-of-use and considered “temporarily abandoned”. In 1993, the 2,000-gallon diesel UST was decommissioned and removed from the northwest adjoining easement to the Site. In 1993, the 4,000-gallon UST reportedly failed a tank tightness test, and six groundwater monitoring wells were subsequently installed at the site. Elevated benzene, toluene, ethyl benzene, total xylenes (BTEX) and total petroleum hydrocarbons (TPH) gasoline were measured within the groundwater samples collected from the monitoring wells.	LUST, soil contamination, groundwater contamination	Myungshin Kim Site Lot No. 023 D 24, 25, 26	Saipan	N	Y

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19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Pina Plateau	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The Pina Plateau is approximately 600 acres, immediately adjacent to a former US military ordnance storage depot known as the Masalog Ridge Area, on Tinian. Due to its close proximity to the Masalog Ridge area, there is potential UXO contamination and the area presents a likely significant health and physical hazards to general public. Additionally, the Pina Plateau is one of the few largest areas of public land available on Tinian for economic development projects, which is also outside of the two-thirds of the US military controlled area.	UXO	Pina Plateau	Tinian	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Puerto Rico Dumpsite	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The dump posed both environmental and public health threats via the discharge and leaching into the nearby lagoon, periodic open fires, and debris flying into the marine water. The dump was officially closed in 2003.	Former landfill	Former Puerto Rico landfill	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Solid Builders	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The site contains heavy equipment/equipment parts, scrap metal, tires, and piles of construction debris such as reinforcing bars. A fuel oil tanker owned by the adjacent land occupant, Clean Earth, is located within the site. Solid Builders has been trying for the last year to have them remove the tanker. The tanker appears to be in good condition. There is one empty 1,500-gallon diesel AST and several 55-gallon drums situated inside a concrete beamed area. The diesel AST is located within a concrete beamed area. During the site visit, a pool of black liquid was observed at the discharge side of the drain for this pad. Clean Earth mobile tankers are also present on site. Scrap metal and construction debris are found on site as well as tires. There is a drain from an AST and drum pad.	ASTs, soil contamination	Solid Builders	Saipan		
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Tanapag PCB Site	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The site was actually a collection of sites in the village of Tanapag where transformers and containers of PCB had been discovered. The PCB contaminated soils were excavated and treated at what is now the Tanapag Cemetery.	Soil contamination	Tanapag PCB Site	Saipan		
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Western Equipment Quarry	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The site was previously used as a quarry and asphalt batching plant. Stored and spilled asphaltic emulsion tar (AET), abandoned buildings, and metal structures are found on site. Abandoned vehicles are also found on site. RECs were identified as four stockpiles of leaking 55-gallon AET drums and associated tar pools (160 drums total), two 5,000 gallon leaking AET tanks and associated tar pools, and three abandoned automobiles. Hazardous substances on site consist of batteries and auto-fluids from abandoned automobiles. Petroleum products were observed as AET stored in leaking 55-gallon drums and leaking ASTs. Empty 3,000 gallon and 500 gallon diesel fuel ASTs were found on the property, indicating diesel fuel was used on the property.	Soil contamination; abandoned drums, ASTs, and vehicles	Western Equipment Quarry Lot 003 J 01	Saipan	N	Y

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19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Western Equipment Shop	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The site has been abandoned by the company since 2004. The site has been contaminated with release of petroleum products, mainly used oil. Also left in place is a large warehouse garage building. In 2007, RECs were identified as four stockpiles of leaking 55-gallon and two 5,000 AET drums and associated tar pools (160 drums total), and three abandoned automobiles and associated chemicals. Further investigation of the environmental condition at the subject property is warranted.	Soil contamination, abandoned drums and vehicles	Western Equipment Shop	Saipan	N	Y
19	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites-Western Equipment Quarry	CNMI BECQ-DEQ Brownfields: Public Record: Hazardous Substance & Petroleum Sites http://cnmideqpublicrecord.weebly.com/hazsub-petroleum-sites.html	The subject site was dormant and used as a solid waste dump site during the 1970's and possible early 1980's. Existing quarry related equipment, crushers, drums, 20-foot container and vehicles appeared to be abandoned in place. Petroleum products were generated on site as part of site activities and are still present on the site and have breached their contaminant barriers and free petroleum product was identified on the ground at the subject site. Three damaged pole mounted transformers from a felled utility pole were identified within the site. One of the three was label PCB-free; however, the other two transformers did not have any labels that indicated the units were PCB-free. Domestic solid waste and metallic debris were identified within the subject site.	Soil contamination	Western Equipment Quarry Lot 250 T 01	Tinian	N	Y
20	Beach Road Ocean View Resort Complex EIA	BECQ Permits and Info Files	4.2 acre development of 100 single unit residential structures, two story commercial building with restaurant, and three story office facility at Lot 1930-R-1 and Lot 1930-1.	none	no need location, no concern	Saipan	N	N
21	Blue Water Homes EIA	BECQ Permits and Info Files	1.25 acre development of 80 unit, 9 story apartment building at Lot 458-NEW-1, 458-NEW-2, 458-NEW-3, 747-1-1.	None	no need location, no concern	Saipan	N	N
22	Castle Project EIA	BECQ Permits and Info Files	3.7 acre development to renovate former garment factory into a housing facility at Lot 30-B-13, Lot 30-B-15.	Former Top Fashion Garment Factory	Lot 30-B-13, Lot 30-B-15	Saipan	N	Y
23	Chalan Laulau Dormitories EIA	BECQ Permits and Info Files	The proposed 1.5 acre project is for the renovation of two existing two-story buildings that were formerly used as dormitories and classrooms, and the construction of one new 3-story prefabricated steel dormitory building and one new 3-story reinforced concrete building to house two levels of parking and a staff canteen. The developer's business plan is to contract the dormitory rooms to CNMI businesses in the resort and hospitality industry that require housing for their employees. Lot 1821-R2.	None	no need location, no concern			
24	Grand Mariana Casino EIA	BECQ Permits and Info Files	10.25 acre development of casino and two hotels, resort complex on 13 private and publically owned parcels: LOT 104-D-10, 104-D-08, 104-D-12, 104-D-11 R/W, TR 21049 R2, Lot 2, Blk 44 T.D. 1440, TR 21066, 21072, 21071, 21059, 21050, 21052, 21054	None	no need location, no concern			
25	Himawari Saipan Inc. Planned Expansion Project	BECQ Permits and Info Files	Hotel expansion, to include an additional building with 50 units Lots # 004 D62, D63, D73, D74, D84 and D85	None	no need location, no concern			
26	Honest Profit Resort	BECQ Permits and Info Files	Development of resort at Lot No. 004-I-52. Site is likely to be rich in cultural resources. Site is currently under development, so data recovery and/or arch monitoring during earth work was/will be performed.	None	no need location, no concern			
27	Ocean Vista Resort	BECQ Permits and Info Files	Mixed use hotel/residential development on TR 21698, H-328-4, H-328-1	none	no need location, no concern	Saipan	N	N
29	Saipan Globe Hotel	BECQ Permits and Info Files	Approximate 0.85 acre development on private land to construct a resort complex at Lots 001 B 42, 008 B 16, 22, 23, 24, 48, and 50	none	no need location, no concern	Saipan	N	N
30	CNMI Coastal Resources Management Program (2011)	CNMI Coastal Resources Management, NOAA	Special Management Areas within coastal zone A new Special Area Management Plan (SAMP) was developed for Bird Island Wildlife Conservation Area and Bird Island Marine Sanctuary.	Special Management Area	Bird Island Wildlife Conservation Area and Bird Island Marine Sanctuary	Saipan	N	Y

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30	CNMI Coastal Resources Management Program (2011)	CNMI Coastal Resources Management, NOAA	Special Management Areas within coastal zone A new SAMP was developed for Kagman Wildlife Conservation Area and Forbidden Island Marine Sanctuary.	Special Management Area	Kagman Wildlife Conservation Area and Forbidden Island Marine Sanctuary	Saipan	N	Y
30	CNMI Coastal Resources Management Program (2011)	CNMI Coastal Resources Management, NOAA	Special Management Areas within coastal zone A new Conservation Action Plan (CAP) was developed for Laolao Bay.	Special Management Area	Lao Lao Bay/Sea Cucumber Sanctuary	Saipan	N	N
30	CNMI Coastal Resources Management Program (2011)	CNMI Coastal Resources Management, NOAA	Special Management Areas within coastal zone A Use Management Plan is underway for Saipan Lagoon.	Special Management Area	Saipan Lagoon	Saipan	N	Y
30	CNMI Coastal Resources Management Program (2011)	CNMI Coastal Resources Management, NOAA	Special Management Areas within coastal zone. A new SAMP was developed for Talakhaya/Sabana.	Special Management Area	Talakhaya/Sabana Watershed (see column K hyperlink for exact boundary)	Rota	N	?
30	CNMI Coastal Resources Management Program (2011)	CNMI Coastal Resources Management, NOAA	Special Management Areas within coastal zone The Northern Islands Marine Monument is underway.	Special Management Area	Northern Islands Marine Monument	NI	N	?
30	CNMI Coastal Resources Management Program (2011)	CNMI Coastal Resources Management, NOAA	Special Management Areas within coastal zone The Marianas Trench Marine National Monument consists of 95,216 square miles of submerged lands and waters of the Mariana Archipelago.	Special Management Area	Marianas Trench Marine National Monument	NI	N	N
33	Garapan Watershed Conservation Action Plan (2013)	CNMI DEQ, Coastal Resource Management, DFW, NOAA	The goal of the Garapan Conservation Action Plan is to maintain and improve the valuable natural resources that exist in the West Takpochao Central subwatershed and to coordinate efforts between stakeholders to provide the most benefits to the natural resources and the community that uses them.	Watershed Area	West Takpochao Central subwatershed (see column K hyperlink for exact boundary)	Saipan	N	?
41	Phase II ESA for Former W2 Service Station (2015)	CNMI DEQ Website	The shop was initially a Mobil gas station that contained three steel USTs installed in 1984. One UST that contained gasoline did not meet regulations for precision testing, and was listed as a leaking UST (LUST), and subsequently closed in 1994. The remaining tanks are dealer owned and have apparently have been abandoned.	LUST	Former W2 Service Station	Saipan	N	Y
53	Phase I Environmental Site Assessment CNMI PECQ Tinian Masolog Site (2014)	BECQ	RECs were UXO and former military activities on site. UXO were encountered during the site investigation. Remnant structures from former military use were observed such as concrete water tanks, revetments, gravel roads, and construction materials.	UXO	Masalog Site	Tinian	N	Y
56	Phase I Environmental Site Assessment Tract 009 C 06, Former USAF PacbarIII Radar Site (2014)	BECQ	RECs were illigal dumping of hazardous waste, USTs, and potentially hazardous materials in building materials.	Illigal dumping, abandoned drums, USTs	Tract 009 C 06, Former USAF PacbarIII Radar Site	Saipan	N	Y

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3	CNMI Public Land Use Plan (Dec. 1989)	CNMI DPL Website	Former landfill was located in Puerto Rico and is planned to be relocated to the Marpi Depression.	Landfill	Former Puerto Rico landfill	Saipan	N	Y
3	CNMI Public Land Use Plan (Dec. 1989)	CNMI DPL Website	The current landfill is located at the Marpi Depression and has a maximum life of 20 years. As the Marpi Depression reaches capacity, a re-evaluation should be conducted of other alternate sites prior to using Marpi Quarry.	Landfill	Marpi landfill	Saipan	N	Y
3	CNMI Public Land Use Plan (Dec. 1989)	CNMI DPL Website	There are no long term plans to develop additional wastewater facilities, but there are plans to improve the existing Sadog Tasi facility. As Saipan continues to develop, it is anticipated that wastewater will be transported to either Sadog Tasi or Agingan Sewage Treatment Plants.	WWTP	Sadog Tasi WWTP	Saipan	N	Y
3	CNMI Public Land Use Plan (Dec. 1989)	CNMI DPL Website	There are no long term plans to develop additional wastewater facilities, but there are plans to improve the existing Sadog Tasi facility. As Saipan continues to develop, it is anticipated that wastewater will be transported to either Sadog Tasi or Agingan Sewage Treatment Plants.	WWTP	Agingan WWTP	Saipan	N	Y
3	CNMI Public Land Use Plan (Dec. 1989)	CNMI DPL Website	There are currently two power generation sites on Saipan: one at Lower Base and one at Agingan. The Lower Base station is undergoing expansion and it is planned that the Agingan station will be passed out as power needs are met from the Lower Base Facility.	Power plant	CUC Lower Base Plant I and II	Saipan	N	Y
3	CNMI Public Land Use Plan (Dec. 1989)	CNMI DPL Website	There are currently two power generation sites on Saipan: one at Lower Base and one at Agingan. The Lower Base station is undergoing expansion and it is planned that the Agingan station will be passed out as power needs are met from the Lower Base Facility.	Power plant	Possible former CUC Agingan power plant	Saipan	N	Y
3	CUC Power Transmission/Distribution	CNMI DPL Website	Additional power plant identified on CUC website in Puerto Rico.	Power plant	CUC Puerto Rico Power Plant IV	Saipan	N	Y
3	CUC Power Transmission/Distribution	CNMI DPL Website	Additional power plant identified on CUC website in Kiya.	Substation	CUC Kiya Substation	Saipan	N	Y
3	CNMI Public Land Use Plan (Dec. 1989)	CNMI DPL Website	The current landfill is located northeast of Songsong on the road to the airport. The dump is physically located in a depression. The site is marked by a low level of activity. There is currently no specific area designated for a new site.	Landfill	Rota landfill	Rota	N	Y
3	CNMI Public Land Use Plan (Dec. 1989)	CNMI DPL Website	Power generation facilities are located near the port area. There is vacant public land in the area adjacent to the existing facility.	Power plant	possible location of CUC Power Plant	Rota	N	Y
3	CNMI Public Land Use Plan (Dec. 1989)	CNMI DPL Website	Wastewater treatment facilities are only in the Songsong area. The current site has adjacent public land which should be reserved for future expansion of the facility.	WWTP	Possible location of Songsong WWTP	Rota	N	Y
3	CNMI Public Land Use Plan (Dec. 1989)	CNMI DPL Website	The current landfill is a low-activity area located in the Federal Retention Area.	Landfill	Tinian Landfill	Tinian	N	Y
3	CNMI Public Land Use Plan (Dec. 1989)	CNMI DPL Website	Power generation facilities are located in the village of San Jose.	Power plant	CUC San Jose Power Plant	Tinian	N	Y
3	CNMI Public Land Use Plan (Dec. 1989)	CNMI DPL Website	Possible location of former power plant.	Power plant	Possible location of former power plant	Tinian	N	Y
4	Master Land Use Master Plan Update Phase 1 GIS for Public Lands (Jan. 2007)	CNMI DPL Website	Plan to upgrade and update the Department of Public Lands (DPL) GIS. Research on existing available data from the DPL and other CNMI agencies. Includes population/housing/industry trends.	NA	NA	All	N	N

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34	Presentation for COMPREHENSIVE LAND USE PLAN for the CNMI	DPL	Overview of the Comprehensive Land Use Study	NA	NA	All	N	N
35	DPL Public Land Use Master Plan Update (2007)	DPL	Plan includes: Upgrade and update the DPL GIS; analyze public land uses; public land use planning and the CNMI economy; projections of homestead applicants by year 2015 for Saipan, Tinian and Rota; formulate preliminary goal and objections; develop and update land use planning criteria. Has been inhabited since the Spanish Period. The economic mainstay of the island during the Post-WWII Period was copra production. Anatahan Village was evacuated in May 2003 when a volcano located on the northern part of the island erupted. Travel to the island is restricted to authorized activities as ordered by the Office of the Governor.	volcanic hazard	Anatahan	NI: Anatahan	N	Y
35	DPL Public Land Use Master Plan Update (2007)	DPL	The last suspected eruptions occurred in 1864 and 1967. The island has been inhabited since the Spanish Period. The economic mainstay of the island during the Post-WWII Period was copra production. A small extended family settlement is situated in the NW section of the island know at "Kakaderu."	volcanic hazard	Alamagan	NI: Alamagan	N	Y
35	DPL Public Land Use Master Plan Update (2007)	DPL	The island has been inhabited since the Spanish Period. The economic mainstay of the island during the Post-WWII Period was copra production. In 1980, the Marianas Public Land Corp started a village homestead survey project to distribute village lots. Last eruption occurred in 1981 which forced residents to evacuate. Since the eruption, a number of firms have expressed interest in mining the volcanic ash (pozzolan) that covers a section of the island. Travel to the island is restricted, however, there are visible indications of scattered settlement in the vicinity of the former village.	volcanic hazard	Pagan	NI: Pagan	N	Y
35	DPL Public Land Use Master Plan Update (2007)	DPL	The island has been inhabited since the Spanish Period. The economic mainstay of the island during the Post-WWII Period was copra production. The island has two buildings - a dispensary that doubles as a typhoon shelter and a single-classroom schoolhouse. The village is located along the SW coastal flat land.	volcanic hazard	Agrihan/Agrigan	NI: Agrihan/Agrigan	N	Y
54	Final Site Inspection Tinian Mortar Range (2015)	DPL	The objective was to perform a site inspection with respect to past use of munitions and explosives of concern (MEC) and munitions constituents (MC). Soil sampling for MC confirmed the present of metal constituents above the Guam environmental screening levels (ESLs). Cultural debris and other significant features were noted. 56 observations of munitions debris (MD) were observed.	MEC	Mortar Range	Tinian	N	Y

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55	Phase I Environmental Site Assessment Tract 034 A 01 (Former Cow Town Site) (2014)	DPL	Recognized Environmental Conditions (RECs) were illigal dumping of solid and oil waste, FUDS in the site vicinity, proximity to the Marpi landfill, and potentially hazardous materials in building materials.	Illigal dumping, abandoned drums	Former Cow Town Site	Saipan	N	Y
57	Well Closure Report: Kobler Naval Supply Center (2006)	DPL	The purpose of the TO was to permanenly close 17 GW monitoring wells.	FUDS, GW monitoring wells	Kobler Naval Supply Center	Saipan	N	N
58	Well Closure Report: Garapan Fuel Pipeline (2004)	DPL	The purpose of the TO was to permanenly close 18 GW monitoring wells.	FUDS, GW monitoring wells	Garapan Fuel Pipeline	Saipan	N	N
59	Well Closure Report: Chalan Kanoa (2006)	DPL	The purpose of the TO was to permanenly close 3 GW monitoring wells.	FUDS, GW monitoring wells	Chalan Kanoa Elementary School	Saipan	N	N
60	Water Infrastructure Developement Plan for the Island of Saipan, CNMI (2003)	DPL	The purpose of the study is to evaluate the existing conditions of Saipan's public water supply system and develop a practical approach to improving this system so that it can satisfy the present and future demands for potable quality drinking water on a continuous basis. The plan recommended technical assistance to CUC, well field isolation project, optimization of existing and future wells, implement SW diversion/treatment system in Sadog Tasi, surface water catchment at CMS quarry, installation of reverse osmosis water treatment plant, distribution storage system improvements, and others.	Water infrastructure plan		Saipan	N	N
61	Final Uniform Federal Policy-Quality Assurance Project Plan Former Tanapag Fuel Farm AST Removal (2016)	DPL	Plan for the removal of 17 AST sites, specifically 13 at Tanapag Village tank farm sites and 4 at Sadog Tasi tank farm sites.	FUDS, AST	Tanapag Fuel Farm site	Saipan	N	Y
62	U.S. Military Services Mariana Islands Training and Testing EIS/OEIS Scoping Information Materials (2011)	DPL	Public scoping meeting posters and fact sheets for the U.S. Military Services Mariana Islands Training and Testing EIS/OEIS.	EIS/OEIS		All	N	Y
63	Results of Investigation: Kobler Naval Supply Center (2004)	DPL	Purpose was to collect soil and GW samples to plan remedial activities at the site. Analytical results were compared to the EPA Preliminary Remediation Goals (PRGs) and Maximum Contaminant Levels (MCLs). Various COPCs exceeded the PRGs and MCLs in the soil and GW samples.	Soil contamination, GW contamination, FUDS	Kobler Naval Supply Center	Saipan	N	Y
64	Edoni Borrow Pit Remedial Investigation Report (2004)	DPL	Some COPC in soil were above the residential PRGs. No GW samples contained COPC above the MCLs.	FUDS, soil contamination	Edoni Borrow Pit	Saipan	N	Y
65	Remedial Action Report: Kagman Airfield (2010)	DPL	Lead-contaminated soils were excavated from the Kagman Airfield dumpsites. Confirmation soil samples were collected to confirm lead was under the screening level of 200 mg/kg. Approximately 8,200 CY of contaminated soil was excavated. Metal debris, MEC, and UXO were also discovered and removed off-site.	soil contamination, UXO, MEC	Kagman Airfield dumpsite	Saipan	N	Y
66	Remedial Action: Chalan Kanoa Eleme	DPL	Sifting of excavated soils was conducted to remove and properly dispose of glass vials containing a variety of pharmaceutical formulations that were discarded by U.S. personnel. 47 undamaged and 36 damaged vials were recovered. Soil and GW samples were collected and were generally below the remediation goals and local cleanup guidelines.	Pharmaceutical waste	Chalan Kanoa Elementary School	Saipan	N	N
67	Quitugua Residence Fire Damage Structural Assessment Report (2002)	DPL	The fire did not cause significant structural damage to the building.	Fire damage	Quitugua Residence	Rota	N	N
68	Final Community Relations Plan Tanapag Village PCB Contamination (2001)	DPL	The purpose of the plan is to facilitate a community relations programs for performing and achieving acceptance of an remedial investigation, feasibility study.	FUDS	Tanapag Village	Saipan	N	N
69	Well Closure Report: Tanapag Fuel Fa	DPL	The purpose of this Task Order was to permanenly close eight GW monitoring wells.	FUDS, GW monitoring wells	Tanapag Fuel Farm	Saipan	N	N
70	Site Investigation Tanapag Fuel Farm (2001)	DPL	A soil and groundwater investigation was conducted. Analytical results indicted elevated levels of TPH in soils. Groundwater analytical results indicated contamination in the immediate vicinity of Tank 13. A groundwater level monitoring and tidal study was also conducted.	Soil contamination, GW contamination, FUDS	Tanapag Fuel Farm	Saipan	N	Y

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71	Site Investigation Edoni (2001)	DPL	A soil and groundwater investigation was conducted. Analytical results indicted elevated levels of PGH, lead, and PCB in soils from the landfill area. Groundwater analytical results indicated elevated levels of lead and TCE. Groundwater gradient and aquifer testing was also conducted.	Soil contamination, GW contamination, FUDS	Edoni	Saipan	N	Y
72	Final Site Inspection Hospital Dump Si	DPL	Numerous intact and broken glass bottles and jars, and other debits were observed throughout the site. IV bottles still containing fluids were also observed. Three MEC were recovered. Soil COCP which exceeded the Pacific Basin screening levels were heavy metals and TPH.	Pharmaceutical waste, soil contamination, MEC	Hospital Dump Site	Saipan	N	Y
73	Remedial Investigation/Feasibility Study Kagman Airfield (1998)	DPL	Results of field investigations indicated that metallic debris and elevated levels of heavy metals are present in near-surface soil sat a former landfill/dump site and naval supply center tank farm. Excavation of contaminated soils is recommended as the remedial action, should the site be considered for future development.	Soil contamination, FUDS	Kagman Airfield	Saipan	N	Y
74	Phase II Remedial Action Tanapag Village (1999)	DPL	1,300 tons of PCB-contaminated soil was removed from 16 sites throughout Tanapag. The soil was transferred to a nearby site for thermal treatment.	Soil contamination, FUDS	Tanapag Village	Saipan	N	Y
75	Mariana Islands Range Complex Airspace EA/OEA (2013)	DPL	The report is to analyze potential environmental impacts relevant to the proposed modifications to training airspace and sea space in the Mariana Islands Range Complex. The purpose of the proposed action is to maximize public awareness of hazardous military training activities, and to optimize safety and training efficiency.	EA/OEA		All	N	N
76	Human Health Evaluation of PCB Contamination Tanapag Village (1997)	DPL	Skin rashes are common in Tanapag. Impetigo and Psoriasis also occur with some regular frequency. The degree of danger posed to human health cannot be fully reconstructed. Although the study identified several individuals with direct contact to PCB oils leaking from capacitors, it is limited to event and medical records as told by residents, health care providers, and other individuals involved in the clean-up efforts.	PCB	Tanapag Village	Saipan	N	N
77	Guide to the Draft Saipan Zoning Law of 2007 (2007)	DPL	Law applied to Saipan and Managaha, upland only. Restricts new development to single family homes, identifies commercial areas near villages for light-duty retail, implements the Garapan and Bean Road Revitalization Plan, protects areas for industrial development, protects rural area for low-density development, protects important public sites, etc.	Zoning		Saipan	N	N
78	Final Environmental Impact Statement Military Training in the Marianas (1999)	DPL	The proposed action is to define certain DoD-controlled lands for environmentally suitable military training activities. The training areas affected are primarily those presently in use by the military. Most of the training land uses described in the FEIS are continuing activities.	Military lands,		Tinian Farallon de Medinilla	N	N
79	Feasibility Study Edoni Site (2010)	DPL	A total of 47 soil samples were collected form seven trenches. Lead exceeded the project screening levels in 34 samples. Seventeen samples exceeded the screening levels for PCBs. GW results were below the screening levels. Soil sampling results also showed exceedances above the screening levels during a remedial investigation.	Soil contamination	Edoni Site	Saipan	N	Y
80	Defense Environmental Restoration Program for FUDS Inventory Project Report: Tanapag Fuel Farm (1996)	DPL	The project area consists of a 4.8-acres site 8 road miles north of Saipan International Airport and about 1.3 road miles north of Garapan, in Puerto Rico. The second project area is a 96-acres site located about 9 road miles north of the Saipan International Airport and 2.3 road miles north of Garapan in Tanapag. Two ASTs were identified in the Puerto Rico site. The Tanapag site has ASTs in three major areas.	ASTs	Tanapag Fuel Farm	Saipan	N	Y

Doc #	Doc Name	Reference Source	Summary of Document	Type	Google Earth Link	Island	More Info Needed? (Y/N)	Site of Interest (Y/N)
31	CNMI DLNR Division of Fish and Wildlife: Marine Protected Areas	CNMI DLNR DFW	The Mañagaha Marine Conservation Area (MMCA)) is a "no-take" area, which surrounds tiny Mañagaha Island on Saipan's western barrier reef. It was created with the enactment of CNMI Public Law 12-12 in order to protect and preserve the natural and cultural resources of the island and surrounding waters, and is currently managed within the guidelines of the Mañagaha Marine Conservation Area Management Plan. Because the MMCA is a "no take" area, it is illegal to catch or remove any species, damage habitat, feed fish, and collect shells, sand or corals.	Marine Protected Area	Managaha Island	Saipan	N	Y
31	CNMI DLNR Division of Fish and Wildlife: Marine Protected Areas	CNMI DLNR DFW	Bird Island Marine Sanctuary is a "no take" protected area, where fishing, damaging corals, feeding fish, and collecting sand and shells are all prohibited. The Bird Island Marine Sanctuary is currently managed within the framework of the Bird Island Wildlife Conservation Area and Bird Island Marine Sanctuary Management Plan. The marine sanctuary runs along the marine side of the adjacent Bird Island Wildlife Conservation Area which includes the Bird Island Lookout. Together, these two conservation areas encompass 268 hectares of land and ocean.	Marine Protected Area	Bird Island Wildlife Conservation Area and Bird Island Marine Sanctuary	Saipan	N	Y
31	CNMI DLNR Division of Fish and Wildlife: Marine Protected Areas	CNMI DLNR DFW	The Forbidden Island Marine Sanctuary is a "no-take" marine protected area, meaning that human activities such as fishing, feeding fish, and collecting sand and shells are all prohibited. Damaging coral is also prohibited here. The Forbidden Island Marine Sanctuary is managed under the framework of the Kagman Wildlife Conservation area and Forbidden Island Marine Sanctuary Management Plan. The Forbidden Island sanctuary extends 1,000 feet offshore, following the shoreline of the Kagman Wildlife Conservation Area, and includes Tank Beach and Forbidden Island.	Marine Protected Area	Kagman Wildlife Conservation Area and Forbidden Island Marine Sanctuary	Saipan	N	Y
31	CNMI DLNR Division of Fish and Wildlife: Marine Protected Areas	CNMI DLNR DFW	It is the only "no-take" Marine Protected Area on Rota. Prohibited activities within the reserve include fishing, taking any marine animals or plants, feeding fish, damaging habitat, interfering with WW II historical sites, and collecting shells, sand or coral. The reserve is bounded from the north by Mushroom Rock, and at the south by Puña Point. It extends 1,000 feet seaward from the mean high tide line.	Marine Protected Area	Sasanhaya Bay Fish Reserve	Rota	N	N
31	CNMI DLNR Division of Fish and Wildlife: Marine Protected Areas	CNMI DLNR DFW	The Tinian Marine Reserve was established by Public Law 15-90 and amended by Public Law 17-14 in order to preserve the natural and pristine beauty of this area of Tinian's marine environment and to regulate the fishing and harvesting of marine life there. It is a "no-take" reserve, and is the sole Marine Protected Area located on Tinian.	Marine Protected Area	Tinian Marine Reserve	Tinian	N	N
31	CNMI DLNR Division of Fish and Wildlife: Marine Protected Areas	CNMI DLNR DFW	The Lau Lau Bay Sea Cucumber Sanctuary was established by Public Law 11-63 and CNMI Administrative Code §85-30.1-420, and is located on the eastern side of Saipan Island. Beginning at Puntan Hakmang and extending south to Puntan Dandan, the Lau Lau Bay Sea Cucumber Sanctuary extends from the mean high water mark seaward to the 40 foot depth contour and borders Forbidden Island Sanctuary's eastern boundary.	Marine Protected Area	Lau Lau Bay Sea Cucumber Sanctuary	Saipan	N	N
31	CNMI DLNR Division of Fish and Wildlife: Marine Protected Areas	CNMI DLNR DFW	The Lighthouse Reef Trochus Sanctuary was established by CNMI Administrative Code §85-30.1-420. The Sanctuary area encompasses the barrier reef from the Garapan channel marker (lighthouse) south for one mile. It extends from the inshore edge of the reef to the forty foot depth contour offshore.	Marine Protected Area	Lighthouse Reef Trochus Sanctuary	Saipan	N	N

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32	CNMI DLNR Division of Fish and Wildlife: Wildlife Conservation Areas	CNMI DLNR DFW	The Bird Island Wildlife Conservation Area was established in 1998 as part of the Commonwealth Mitigation Bank under Public Law 10-84 for purposes of wildlife conservation, to be managed to enhance habitat functions for targeted endangered and threatened species. It is located on the northeastern coast of Saipan and extends from the Bird Island Marine Sanctuary landward. It includes the Grotto and Bird Island Lookout and encompasses an area of 118 hectares.	Wildlife Conservation Area	Bird Island Wildlife Conservation Area and Bird Island Marine Sanctuary	Saipan	N	Y
32	CNMI DLNR Division of Fish and Wildlife: Wildlife Conservation Areas	CNMI DLNR DFW	The Kagman Wildlife Conservation Area was established in 1998 as part of the Commonwealth Mitigation Bank under Public Law 10-84 for purposes of wildlife conservation, to be managed to enhance habitat functions for targeted endangered and threatened species. It consists of 175 hectares along the eastern shoreline of the Kagman Peninsula and includes the Forbidden Island Overlook.	Wildlife Conservation Area	Kagman Wildlife Conservation Area	Saipan	N	Y
32	CNMI DLNR Division of Fish and Wildlife: Wildlife Conservation Areas	CNMI DLNR DFW	Hagoi Susupi (Lake Susupe) is a small (0.17 sq km), brackish lake near the southwest part of Saipan, surrounded by an extensive marsh area of 2.02 sq km. Together this area is the Susupe Wetland. It accounts for 60% of the wetlands in the CNMI and provides 77% of the remaining habitat for the Mariana common moorhen (Gallinula chloropus guami), a bird listed both Federally as an endangered and locally as a threatened or endangered species.	Wildlife Conservation Area, wetlands	Lake Susupe Conservation Area	Saipan	N	Y
32	CNMI DLNR Division of Fish and Wildlife: Wildlife Conservation Areas	CNMI DLNR DFW	The Nightingale Reed-Warbler Conservation Area and the Micronesian Megapode Conservation Area were established after the CNMI Department of Public Lands' (DPL) formal Section 7 consultation with the U.S. Fish and Wildlife Service as part of the planning process for Marpi Point village homestead development.	Wildlife Conservation Area	Nightingale Reed-Warbler & Micronesian Megapode Conservation Areas (see column K hyperlink for exact boundary)	Saipan	N	Y
32	CNMI DLNR Division of Fish and Wildlife: Wildlife Conservation Areas	CNMI DLNR DFW	The Saipan Upland Mitigation Bank provides a species reserve (Protected Area) for the Federally and locally listed endangered Nightingale Reed-Warblers (*Acrocephalus luscinia*). The Protected Area also serves as protected habitat for other threatened and endangered species including the Micronesian Megapode (*Megapodius laperouse*) and the Mariana Swiftlet (*Aerodramus bartschi*), and endemic species such as the Collared Kingfisher (*Halcyon chloris*), Mariana Fruit-dove (*Ptilinopus roseicapilla*), and Golden White-eye (*Cleptornis marchei*). Additionally, Mariana Fruit Bat (*Pteropus mariannus*) and scarce herpetofauna and invertebrates occur within the Protected Area.	Wildlife Conservation Area, Protected Area	Saipan Upland Mitigation Bank (see column K hyperlink for exact boundary)	Saipan	N	Y
32	CNMI DLNR Division of Fish and Wildlife: Wildlife Conservation Areas	CNMI DLNR DFW	The Costco Park Wetland Mitigation Pond was created for wetland mitigation under the Clean Water Act of 1972. It provides habitat for the endangered Mariana Common Moorhen and migratory birds. The wetland is not completely natural. It was engineered to provide wetland habitat year-round by way of a surrounding aquatic moat that contains water all year, even during the dry season.	Wildlife Conservation Area, wetlands	Costco Park Wetland Mitigation Pond	Saipan	N	Y
32	CNMI DLNR Division of Fish and Wildlife: Wildlife Conservation Areas	CNMI DLNR DFW	The Marianas Crow Conservation Area (MCCA)was created by DFW regulation (Subchapter 85-30.4 of the CNMI Administrative Code) in order to "insure appropriate use of the MCCA for the enjoyment and general welfare of the public while protecting the area in its natural state to serve as a refuge for native wildlife, with emphasis on the Mariana Crow."	Wildlife Conservation Area	Mariana Crow Conservation Area (see column K hyperlink for exact boundary)	Rota	N	Y

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32	CNMI DLNR Division of Fish and Wildlife: Wildlife Conservation Areas	CNMI DLNR DFW	The Sabana Protected Area is a 15 sq km plateau of mixed small agricultural lots and various types of native forest, including adjacent forested cliff lines. It encompasses more than one-third of the island's land mass and provides habitat for several of endemic species including the Marianas Fruit Bat, Bridled White Eye, Marianas Crow, Sambar Deer, Coconut Crab, and seabirds like Brown Boobies.	Wildlife Conservation Area	Sabana Protected Area (see column K hyperlink for exact boundary)	Rota	N	Y
32	CNMI DLNR Division of Fish and Wildlife: Wildlife Conservation Areas	CNMI DLNR DFW	I'Chenchon Park Wildlife Conservation Area, also known as the I'Chenchon Bird Sanctuary, was established by Rota Local Law 9-1 for the conservation of wildlife and forest vegetation for the benefit of current residents, future generations, and the tourist industry. It is home to a wide variety of nesting seabirds. It includes coastal cliffs and primary limestone forest extending along the entire length of Luta's eastern coastline.	Wildlife Conservation Area	I'Chenchon Park Wildlife Conservation Area	Rota	N	Y
32	CNMI DLNR Division of Fish and Wildlife: Wildlife Conservation Areas	CNMI DLNR DFW	Incorporating Mt. Taipingot, also known as Wedding Cake Mountain because of its layered appearance and flat top, the Liyo Conservation Area was created by Rota Local Law (Title 10: Division 1: Section 1821) in order to conserve the indigenous wildlife and forest vegetation that exists on and around Mt. Taipingot.	Wildlife Conservation Area	Liyo Conservation Area/Taipingot Conservation Area	Rota	N	Y
32	CNMI DLNR Division of Fish and Wildlife: Wildlife Conservation Areas	CNMI DLNR DFW	The islands of Guguan, Uracus, Maug and Asuncion are designated as wildlife conservation areas in accordance with 2 CMC § 5104(a)(5) and article XIV(2) of the CNMI Constitution. Landing on these islands is prohibited without prior approval from the Director, except in the case of actual emergency.	Wildlife Conservation Area	Guguan Island	NI: Guguan	N	Y
32	CNMI DLNR Division of Fish and Wildlife: Wildlife Conservation Areas	CNMI DLNR DFW	The islands of Guguan, Uracus, Maug and Asuncion are designated as wildlife conservation areas in accordance with 2 CMC § 5104(a)(5) and article XIV(2) of the CNMI Constitution. Landing on these islands is prohibited without prior approval from the Director, except in the case of actual emergency.	Wildlife Conservation Area	Uracas Island/Farallon de Pajaros	NI: Uracas/Farallon de Pajaros	N	Y
32	CNMI DLNR Division of Fish and Wildlife: Wildlife Conservation Areas	CNMI DLNR DFW	The islands of Guguan, Uracus, Maug and Asuncion are designated as wildlife conservation areas in accordance with 2 CMC § 5104(a)(5) and article XIV(2) of the CNMI Constitution. Landing on these islands is prohibited without prior approval from the Director, except in the case of actual emergency.	Wildlife Conservation Area	Maug Islands	NI: Maug	N	Y
32	CNMI DLNR Division of Fish and Wildlife: Wildlife Conservation Areas	CNMI DLNR DFW	The islands of Guguan, Uracus, Maug and Asuncion are designated as wildlife conservation areas in accordance with 2 CMC § 5104(a)(5) and article XIV(2) of the CNMI Constitution. Landing on these islands is prohibited without prior approval from the Director, except in the case of actual emergency.	Wildlife Conservation Area	Asuncion Island	NI: Asuncion	N	Y

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16	2013 TRI Factsheet: State Northern M	EPA Toxic Release Inventory https://iaspub.epa.gov/triexplorer/tri_factsheet.factsheet_forstate?&pstate=MP&pyear=2013&pDataSet=TRIQ1	TRI Facility Name: Hawaiian Rock Products Road Paving Address: Naften Rd., Saipan, 96950 Total On-site Releases: 1 Total Off-site Releases: Total Transfers Off-site for Further Waste Management: 0 Total Waste Managed: 1	EPA TRI	Hawaiian Rock Products Road Paving, Naftan Road, Naftan	Saipan	N	Y
16	2013 TRI Factsheet: State Northern M	EPA Toxic Release Inventory https://iaspub.epa.gov/triexplorer/tri_factsheet.factsheet_forstate?&pstate=MP&pyear=2013&pDataSet=TRIQ1	Commonwealth Utilities Corp. (CUC) San Jose Village, Tinian, 96952 Total On-site Releases: 169 Total Off-site Releases: 0 Total Transfers Off-site for Further Waste Management: 0 Total Waste Managed: 169	EPA TRI	Commonwealth Utilities Corp., San Jose Village	Tinian	N	Y
17	2016 TRI Factsheet: Country Saipan, MP	EPA Toxic Release Inventory https://iaspub.epa.gov/triexplorer/tri_factsheet.factsheet?pstate=MP&pcounty=Saipan&pyear=2016&pParent=NAT	CUC Industrial Drive, Lower Base, Saipan, 96950 Total On-site Releases: 14,019 Total Off-site Releases: Total Transfers Off-site for Further Waste Management: 0 Total Waste Managed: 14,019	EPA TRI	CUC Lower Base	Saipan	N	Y
17	2016 TRI Factsheet: Country Saipan, MP	EPA Toxic Release Inventory https://iaspub.epa.gov/triexplorer/tri_factsheet.factsheet?pstate=MP&pcounty=Saipan&pyear=2016&pParent=NAT	Mariana Acquisition Corp./Saipan Terminal Industrial Dr., Saipan, 96950 Total On-site Releases: 627 Total Off-site Releases: Total Transfers Off-site for Further Waste Management: 0 Total Waste Managed: 627	EPA TRI	Shell Puerto Rico Terminal	Saipan	N	Y
17	2016 TRI Factsheet: Country Saipan, MP	EPA Toxic Release Inventory https://iaspub.epa.gov/triexplorer/tri_factsheet.factsheet?pstate=MP&pcounty=Saipan&pyear=2016&pParent=NAT	Mobil Oil Mariana Islands, Inc. (Saipan Terminal) Puerto Rico Tanapag Harbor, Saipan, 96950 Total On-site Releases: 1,068 Total Off-site Releases: 0 Total Transfers Off-site for Further Waste Management: 0 Total Waste Managed: 1,068	EPA TRI	Mobil Oil Saipan Terminal	Saipan	N	Y
17	2016 TRI Factsheet: Country Saipan, MP	EPA Toxic Release Inventory https://iaspub.epa.gov/triexplorer/tri_factsheet.factsheet?pstate=MP&pcounty=Saipan&pyear=2016&pParent=NAT	CUC Chalan Pale Arnold Rd., Puerto Rico, Saipan, 96950 Total On-site Releases: 4 Total Off-site Releases: Total Transfers Off-site for Further Waste Management: 0 Total Waste Managed: 4	EPA TRI	CUC Chalan	Saipan	N	Y
17	2016 TRI Factsheet: Country Saipan, MP	EPA Toxic Release Inventory https://iaspub.epa.gov/triexplorer/tri_factsheet.factsheet?pstate=MP&pcounty=Saipan&pyear=2016&pParent=NAT	TRI Facility Name: Mobil Oil Mariana Islands, Inc. (Saipan Aviation Depot) Address: Airport Road, Dandan, Saipan, 96950 Total On-site Releases: 20 Total Off-site Releases: Total Transfers Off-site for Further Waste Management: 0 Total Waste Managed: 20	EPA TRI	Mobil Oil Aviation Depot	Saipan	N	Y
17	2016 TRI Factsheet: Country Saipan, MP	EPA Toxic Release Inventory https://iaspub.epa.gov/triexplorer/tri_factsheet.factsheet?pstate=MP&pcounty=Saipan&pyear=2016&pParent=NAT	Hawaiian Rock Products Road Paving Naftan Rd., Saipan, 96950 Total On-site Releases: 5 Total Off-site Releases: Total Transfers Off-site for Further Waste Management: 0 Total Waste Managed: 5	EPA TRI	Hawaiian Rock Products Road Paving, Naftan Road, Naftan	Saipan	N	Y

Doc #	Doc Name	Reference Source	Summary of Document	Type	Google Earth Link	Island	More Info Needed? (Y/N)	Site of Interest (Y/N)
36	FRS Facility Detail Report	EPA	Site EPA ID: MPD980798318 Street Address: LOWER BASE 1000/PHILIPINE SEA NPL Status: Deleted from the Final NPL	Deleted from NPL	PCB Warehouse	Saipan	Y	Y
36	FRS Facility Detail Report	EPA	Site EPA ID: MPN000909060 Street Address: Puerto Rico NPL Status: Not on the NPL, no site work needed	Not on the NPL	CUC Power Plant 4 PCB Site	Saipan	N	Y

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1	Remedial Action Report Edoni Site, Edoni, Saipan	Joeten Kiyu Library	USACE remediated a former borrow pit and open dump between January - May 2012. The site was know to have lead and PCB-contaminated soils onsite. Fifty-seven containers of PCB-impacted material and equipment was transported via cargo ship to permitted disposal facility in Beatty, NV. One hundred sixty-one truckloads of lead-contaminated soil was transported to the Marpi Solid Waste Disposal Facility on Saipan. An assortment of metallic debris was extracted by hand and trucked to Saipan Triple Star Recycling. Remaining soil is below applicable ESL. Groundwater sampling at area wells indicated contaminant levels before lthe EPA Maximum Contaminant Levels. The proposed use for the site is as a surface runoff ponding basin.	Contamination, DERPS/FUDS	GE Placemark	Saipan	N	Y
2	Final Remedial Investigation Report Naftan Bomb Storage (NBS) and Naftan Ordnance Disposal (NOD) Munitions Response Sites, Obyan, Saipan, CNMI	Joeten Kiyu Library	The results of this RI and the assessments of MEC hazards indicate that the MEC contamination identified at the NBS MRS and NOD MRS poses an unacceptable risk from explosive hazards to current and future receptors. There is also the potential for unacceptable hazards to human health resulting from exposure to antimony in soil at the NOD MRS and to lead in the soil at both the NBS MRS and the NOD MRS under the potential future residential exposure scenario. In addition to human health risks, unacceptable risks to ecological receptors are possible resulting from exposure to antimony, barium, copper, lead, and zinc in surface soil at the NBS and NOD MRSs.	Contamination, MRS	GE Placemark and Polygon	Saipan	N	Y
8	Final Remedial Investigation Work Plan for Munitions Constituents, Munitions Response Site Tinian Motar Range	Joeten Kiyu Library	The site was used as a weapons training range for small arms, 40-millimeter (mm) rifle-launched grenades, 60 mm mortars, and 81 mm mortars. The work plan was developed in 2017 to evaluate the presence and distribution of MEC and potential soil contamination by mec associated with historical training activities conducted at the site.	MRS	Tinian Mortar Range	Tinian	N	Y
9	Final Environmental Impact Statement for Divert Activities and Exercises, CNMI	Joeten Kiyu Library	In June 2000, approximately 26 55-gallon drums were discovered during land clearing on a CPA-owned parcel just south of Continental Drive, Lot 028 K 11 Parcel “B.” Subsequent investigations of the discovered drums determined that all but one of these drums was filled with soil, partially buried, and rusting. The remaining drum was one-third full of waste oil. One drum was labeled “U.S. Army,” which suggests that it dates from World War II. A preliminary site inspection indicated the presence of contaminants in the soil at levels greater than USEPA reporting limits. The parcel currently is listed as a Brownfields property and is considered an area for uncontrolled dumping of municipal wastes, tires, construction debris, bottles, and cars. World War II-era UXO contamination is a possibility due to the suspected age of some materials deposited on the property (CNMI BECQ 2010b, CNMI BECQ undated). There is no record of remedial action being conducted at the property.	Soil Contamination	Lot 028 K 11 Parcel "B"	Saipan	N	Y
10	Final Environmental Impact Statement for Divert Activities and Exercises, CNMI	Joeten Kiyu Library	On 01 January 2001, a pipe flange within a surge suppression vault on an underground jet fuel line between the main and commuter terminals failed, resulting in a release of 7,418 gallons of jet fuel. Of this quantity, 5,873 gallons were not recovered and impacted soil. A soil vapor extraction system was installed to remediate subsurface soil contamination, and groundwater sampling has been occurring on a periodic basis to ensure that contaminants have not impacted groundwater.	Brownfields	Pipe Flange Failure at SIA	Saipan	N	Y

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11	Final Environmental Impact Statement for Divert Activities and Exercises, CNMI	Joeten Kiyu Library	The "Isley Field Commonwealth Utilities Corporation Power Plant #3" property was used formerly as an electrical power generation facility, but after operations ceased, the property was used for the storage of waste oils and discarded electrical transformers, some containing PCBs. A December 2010 site investigation of the property identified several hundred 55-gallon drums, some containing waste oils, on the property. The site investigation recommended the removal and proper disposal of these materials, which equated to approximately 2,500 gallons of oily wastewater, 950 gallons of total petroleum hydrocarbons (TPHs) sludge, 8 cubic yards of TPH-contaminated soil in 55-gallon drums, and less than 4 cubic feet each of paint chips, oil pads, and oily metallic debris. No groundwater contamination was identified, but the site investigation recommended the excavation of several areas of contaminated soil. Removal actions for the site were completed in October 2011 under USEPA oversight and are documented in a letter report dated June 19, 2012, from the Ecology and Environment, Inc., Superfund Technical Assessment and Response to the USEPA.	Soil Contamination	Isley Field Commonwealth Utilities Corporation Power Plant #3	Saipan	N	Y
12	Final Environmental Impact Statement for Divert Activities and Exercises, CNMI	Joeten Kiyu Library	An inspection of Saipan International Airport property during 2005 identified seven Areas of Concern (AOCs) with the potential for environmental contamination. These AOCs included the CPA Incinerator Area, CPA Operational Maintenance Facility Freedom Air Maintenance Facility, Pacific Island Aviation Maintenance Facility, Continental Airlines Maintenance Facility, Continental Cargo Facility, and the Former Fuel Storage and Dispensing Facility. A total of 50 surface and subsurface soil samples were taken from these AOCs and analyzed for petroleum hydrocarbons and heavy metals. All seven AOCs were found to contain some form of soil contamination greater than CNMI BECQ clean-up goals. No areas of soil contamination were found below 48 inches of ground surface, and while groundwater sampling was not conducted, impacts on groundwater were determined unlikely. Excavation of contaminated soil and bioremediation was recommended for each of the seven AOCs; however, there is no record of these actions ever taking place.	Soil Contamination	SIA	Saipan	N	Y
13	Final Environmental Impact Statement for Divert Activities and Exercises, CNMI	Joeten Kiyu Library	Much of the area at and surrounding Tinian International Airport was used during World War II by both Japanese and American forces as a military airfield where aircraft servicing occurred. The World War II-era predates modern environmental regulations; therefore, there is the potential for improper onsite disposal of hazardous materials, hazardous wastes, and petroleum products during the former airfield operations.	Soil Contamination	TIA	Saipan	N	Y

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5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0401 Category: Military Munitions Response Program Additional info: 2011 Cleanup completed	FUDS	Island of Rota	Rota	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0394 Category: Hazardous, Toxic and/or Radioactive Waste	FUDS	American Memorial Park	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0402 Category: Hazardous, Toxic and/or Radioactive Waste Additional Info: Removal of medical glass vials, work completed in 2000	FUDS	Chalan Kanoa Elementary School	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0014 Category: Hazardous, Toxic and/or Radioactive Waste Additional info: waste disposal dump site, lead and PCB-impacted soil; 2012: Cleanup completed, PCB and lead contaminated soy removed, cleaned "to a level that allows for unlimited use."	FUDS	Edoni Site	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0130 Category: Hazardous, Toxic and/or Radioactive Waste	FUDS	Garapan Fuel Pipeline: Site 01	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0130 Category: Hazardous, Toxic and/or Radioactive Waste	FUDS	Garapan Fuel Pipeline: Site 02	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0120 Category: Hazardous, Toxic and/or Radioactive Waste Additional info: 2020 expected completion date	FUDS	Hospital Dump Site	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0002 Category: Containerized Hazardous, Toxic and/or Radioactive Waste Additional info: Cleanup completed in 1996	FUDS	Isley Field: Site 1	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0002 Category: Building Demolition and Debris Removal Additional info: Cleanup completed in 1996	FUDS	Isley Field: Site 2	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0080 Category: Hazardous, Toxic and/or Radioactive Waste Additional info: Waste materials generated from airfield operation were reportedly discarded in a large sinkhole located about 500 feet NNW of the runway. 2007: the entire site has been excavated. The USACE did not purchase soil for the earthen cap. DEQ continues to communicate with the USACE regarding this project.	FUDS	Kagman Airfield	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0040 Category: Containerized Hazardous, Toxic and/or Radioactive Waste Additional info: 1998 completion date	FUDS	Kagman Caves	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0395 Category: Containerized Hazardous, Toxic and/or Radioactive Waste Additional info: Encompasses 64 acres in the Fina Sisu area and contained nine 10,000-barrel ASTs (Tank sites 1-9) and was referred to as the Chalan Kanoa Tank Farm.	FUDS	Kobler Naval Supply Center: Site 1	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0395 Category: Hazardous, Toxic and/or Radioactive Waste Additional info: Encompasses 32 acres in the Chalan Piao/As Perdido area and was referred to as the Old South Tank Farm. The site contained nine 1,000 barrel ASTs (Tank sites 10-18).	FUDS	Kobler Naval Supply Center: Site 2	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0007 Category: Military Munitions Response Program Additional info: MEC found and removed, elevated levels of lead and zinc also identified	FUDS	Marpi Point Field	Saipan	N	Y

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5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0001 Category: Military Munitions Response Program	FUDS	Naftan Bomb Storage	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0070 Category: Military Munitions Response Program Additional info: MEC recovered, elevated levels of antimony, barium, copper, lead, and zinc	FUDS	Naftan Ordnance Disposal	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0100 Category: Military Munitions Response Program Burial Pit	FUDS, MEC	North Field: Site 1	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0100 Category: Military Munitions Response Program Disposal Area	FUDS, MEC	North Field: Site 2	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0060 Category: Military Munitions Response Program	FUDS	Ordnance Plan	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0030 Category: Containerized Hazardous, Toxic and/or Radioactive Waste Additional info: 1998 completion date	FUDS	Quartermaster Station	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0398 Category: Containerized Hazardous, Toxic and/or Radioactive Waste Additional info: The tanks previously provided fuel for ships and aircraft. There are two sites. 42 ASTs were located on a 96-acre site in Tanapag, and four were located on a separate 4.8-acre site near Sadog. Six tanks were categorized as high priority. Removal action for the six tanks was completed in 2006 from the Tanapag site. There are currently 13 tanks in Tanapag and four tanks in Sadog Tasi that remain. Removal action for the remaining 17 tanks is planned.	FUDS	Tanapag Fuel Farm: Site 1 Tanapag Site	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0398 Category: Hazardous, Toxic and/or Radioactive Waste Additional info: The tanks previously provided fuel for ships and aircraft. There are two sites. 42 ASTs were located on a 96-acre site in Tanapag, and four were located on a separate 4.8-acre site near Sadog. Six tanks were categorized as high priority. Removal action for the six tanks was completed in 2006 from the Tanapag site. There are currently 13 tanks in Tanapag and four tanks in Sadog Tasi that remain. Removal action for the remaining 17 tanks is planned.	FUDS	Tanapag Fuel Farm: Site 2 Sadog Tasi Site	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0050 Category: Hazardous, Toxic and/or Radioactive Waste	FUDS	Tanapag Village PCB Contamination	Saipan	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0403 Category: Hazardous, Toxic and/or Radioactive Waste Additional info: 2004 cleanup completed	FUDS	Surplus Area - West Field: Site 1	Tinian	N	Y
5	USACE FUDS Inventory CNMI	USACE Website - FUDS Inventory per State	Property number: H09CN0403 Category: Containerized Hazardous, Toxic and/or Radioactive Waste Additional info: 2004 cleanup completed	FUDS	Surplus Area - West Field: Site 2	Tinian	N	Y
15	Ground-Water Resources of Saipan, CNMI	USGS https://pubs.usgs.gov/wri/wri034178/htdocs/wrir03-4178.html	Freshwater resources on Saipan are not readily observable because, aside from the abundant rainfall, most freshwater occurs as ground water. Fresh ground water is found in aquifers composed mainly of fragmental limestone. About 90 percent of the municipal water supply comes from 140 shallow wells that withdraw about 11 Mgal/d. The chloride concentration of water withdrawn from production wells ranges from less than 100 mg/L for wells in the Akgak and Capital Hill well fields, to over 2,000 mg/L from wells in the Puerto Rico, Maui IV, and Marpi Quarry well fields.	Groundwater resources	Saipan	Saipan	N	N

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37	Building the Navy's Bases in World War II	Naval History and Heritage Command	Sites all previously identified as FUDS of FUDS inclusion, locations not provided	NA	NA	Saipan	N	N
38	Final Proposed Plan for Kagman Airfield (Dump Site) 2007	USACE	FUDS ID number: H09CN008000 The dump site is within a natural sinkhole with occupies approximately 4-5 acres. Waste materials generated from airfield operation were reportedly discarded in the sinkhole. Remedial investigation found concentrations of TPH, VOCs, pesticides, and metals in soil below EPA PRG. Metals detected in GW.	Soil contmination, dump, FUDS	Kagman Airfield Dump Site	Saipan	N	Y
39	Fact Sheet: Environmental Restoration of Tanapag Fuel Farm	USACE	Consists of two separte areas approximately 0.5 miles apart. The first site is 4.8 acres located in Sadog Tasi. The second site is 96 acres in Tanapag Village. The remains of 29 ASTs were located, 4 in Sadog Tasi and 25 in Tanapag.	ASTs, soil contamination	Tanapag Fuel Farm: Sadog Tasi Site	Saipan	N	Y
40	Fact Sheet: Environmental Restoration of Tanapag Fuel Farm	USACE	Consists of two separte areas approximately 0.5 miles apart. The first site is 4.8 acres located in Sadog Tasi. The second site is 96 acres in Tanapag Village. The remains of 29 ASTs were located, 4 in Sadog Tasi and 25 in Tanapag.	ASTs, soil contamination	Tanapag Fuel Farm: Tanapag Site	Saipan	N	Y

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47	Commonwealth of the Marianas Islands Energy Action Plan	National Renewable Energy Laboratory (NREL)	This document describes the three near-term energy strategies selected by the CNMI Energy Task Force during action planning workshops conducted in March 2013, and outlines the steps being taken to implement those strategies.			CNMI	N	
48	Commonwealth of the Marianas Islands Strategic Energy Plan	NREL	This document serves as a starting point for energy planning and builds upon various prior resource assessments. This strategic energy plan addresses a range of energy options focusing on energy efficiency and renewable energy technologies, policies, and programs. Various steps are presented, including ready-for-action opportunities as well as those that that require further investigation. This plan will serve as the foundation for formulating actions and implementation strategies. This plan presents three future scenarios regarding the energy efficiency and renewable energy technical potential in the CNMI — a base case, a low-impact scenario (20% reduction in fossil fuel consumption), and a high-impact scenario (53% reduction in fossil fuel consumption). The purpose of this scenario exercise is to show what CNMI's energy portfolio could look like by the year 2026. Using industry-standard profiles and potentially achievable targets in CNMI's energy technology portfolio, various scenarios of end-user energy efficiency, supply-side efficiency improvements. and use of renewable energy were modeled to produce outputs that provide a visual picture of the opportunities. The scenarios are not prescriptive, they are tools designed to serve as a guide. As the CNMI ETF develops opportunities, with it will come an understanding of the costs and benefits that will play an influential role in implementation.			CNMI	N	N
49	Energy Efficiency and Renewable Energy Efforts in the Pacific Territories and Freely Associated States	NREL	This Phase I has been completed to which NREL assisted with the establishment of ETFs, completed initial baseline energy benchmarks against which future progress can be measured, developed data tracking templates, created an analysis model to help visualize future scenarios, created Energy Assessment Reports, and developed draft Strategic Plans.			All Pacific Territorries	N	
50	Commonwealth of the Northern Marianas Islands Initial Technical Assessment Report	NREL	The information compiled in this assessment will be used as input in the development of a strategic plan draft to meet the third project objective. This document summarizes data collected regarding energy production, consumption, and efficiencies, discusses renewable energy and energy efficiency technology potential, and describes current opportunities and potential barriers. Additional data or analysis needed is documented in the "Next Steps" sections. The opportunities highlighted in this report can be used as a starting point to formulate an energy plan.			CNMI	N	

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6	Saipan FUDS List	GAO website	Property number: H09CN0404 Eligibility pending	Properties for Potential Inclusion in FUDS Cleanup Program	As Lito Fuel Farm	Saipan	Y	Y
6	Saipan FUDS List	GAO website	Property number: H09CN0396 Site is eligible for FUDS funding.	Properties for Potential Inclusion in FUDS Cleanup Program	Cape Obian Depot	Saipan	Y	Y
6	Saipan FUDS List	GAO website	Property number: H09CN0008 Not eligible for FUDS, no records	Properties for Potential Inclusion in FUDS Cleanup Program	CP Calhoun	Saipan	Y	Y
6	Saipan FUDS List	GAO website	Property number: H09CN0010 Location: Saipan International Airport, lot 026 K 011 Parcel B, Dan Dan, approx. 0.49 ac Additional info: In 2009, 25 soil filled drums and one waste oil drum were found during a Phase I ESA site recon. Possible UXO casings were also observed. Site is eligible for FUDS funding.	Properties for Potential Inclusion in FUDS Cleanup Program	Dandan Asphalt Drum Dump Site	Saipan	Y	Y
6	Saipan FUDS List	GAO website	Property number: H09CN0011; H09CN001101 Location: Marpi Site is eligible for FUDS funding.	Properties for Potential Inclusion in FUDS Cleanup Program	Far East Broadcasting Co.	Saipan	Y	Y
6	Saipan FUDS List	GAO website	Property number: H09CN0012 Site is eligible for FUDS funding.	Properties for Potential Inclusion in FUDS Cleanup Program	Tai Gomat Asphalt Drum Dump Site	Saipan	Y	Y
7	U.S. GAO Properties Identified for Potential Inclusion in FUDS Cleanup Program	GAO website	Property number: H09CN0400 Additional info: UXO Site is eligible for FUDS funding. A Phase I ESA conducted in 2014 indicated that there were UXO.	Properties for Potential Inclusion in FUDS Cleanup Program Brownfields	Goat Island	Aguijan	N	Y
7	U.S. GAO Properties Identified for Potential Inclusion in FUDS Cleanup Program	GAO website	Property number: H09CN0399 Site is eligible for FUDS funding.	Properties for Potential Inclusion in FUDS Cleanup Program	Pagan Island	NI: Pagan	N	Y
7	U.S. GAO Properties Identified for Potential Inclusion in FUDS Cleanup Program	GAO website	Property number:H09CN0013 Additional info: Not eligible for FUDS, active DOD installation	Properties for Potential Inclusion in FUDS Cleanup Program	Tinian Asphalt Drum Dump	Tinian	Y	Y
7	U.S. GAO Properties Identified for Potential Inclusion in FUDS Cleanup Program	GAO website	Property number: H09CN0000 Additional info: Not eligible for FUDS, contaminated by an act of war	Properties for Potential Inclusion in FUDS Cleanup Program	Carolinas	Tinian	Y	Y
7	U.S. GAO Properties Identified for Potential Inclusion in FUDS Cleanup Program	GAO website	Property number: H09CN0009 Additional info: Not eligible for FUDS, contaminated by an act of war	Properties for Potential Inclusion in FUDS Cleanup Program	Japanese Defensive Complex		Y	Y
7	U.S. GAO Properties Identified for Potential Inclusion in FUDS Cleanup Program	GAO website	Property number: H09CN0020 Additional info: Not eligible for FUDS, contaminated by an act of war	Properties for Potential Inclusion in FUDS Cleanup Program	Latte Stone Site		Y	Y
7	U.S. GAO Properties Identified for Potential Inclusion in FUDS Cleanup Program	GAO website	Property number: H09CN0090 Additional info: Not eligible for FUDS, not formerly used, owned, or controlled by DOD	Properties for Potential Inclusion in FUDS Cleanup Program	Rota Site 1	Rota	Y	Y

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28	Draft CNMI Joint Military EIS/Overseas EIS (2015)	CNMI Joint Military Training EIS/OEIS website http://www.cnmijointmilitarytrainingeis.com/	The proposed action is to establish a series of live-fire ranges, training courses, and maneuver areas within the CNMI to reduce existing joint service training deficiencies and meet the U.S. Pacific Command Service Components' unfilled unit level and combined level training requirements in the Western Pacific. Under the proposed action, unit level training would occur on Tinian and combined level training would occur on Pagan. Use of both islands is required to meet the purpose and need for the proposed action. The proposed action includes: construction, range management, expanded training and operations (to include combined arms, livefire, and maneuver training at the unit and combined level), establishment of danger zones, designation of Special Use Airspace, and interest in land to support simultaneous and integrated training.	Military lands, UXO	Military Leased Area	Tinian	N	Y
28	Draft CNMI Joint Military EIS/Overseas EIS (2015)	CNMI Joint Military Training EIS/OEIS website http://www.cnmijointmilitarytrainingeis.com/	The proposed action is to establish a series of live-fire ranges, training courses, and maneuver areas within the CNMI to reduce existing joint service training deficiencies and meet the U.S. Pacific Command Service Components' unfilled unit level and combined level training requirements in the Western Pacific. Under the proposed action, unit level training would occur on Tinian and combined level training would occur on Pagan. Use of both islands is required to meet the purpose and need for the proposed action. The proposed action includes: construction, range management, expanded training and operations (to include combined arms, livefire, and maneuver training at the unit and combined level), establishment of danger zones, designation of Special Use Airspace, and interest in land to support simultaneous and integrated training.	Military lands, UXO	Entire Pagan	NI: Pagan	N	Y

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42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	TINIAN ISLAND, MP 96952 (NEAR SAN JOSE VILLAGE) Facility Registry ID : 110021036573/4 Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards Activity Date: 2005-03-15 00:00:00 Activity Status Date : Not reported Activity Group: Compliance Monitoring Activity Type: Inspection/Evaluation Activity Status: Not reported Additional info: Transmitter site. Includes the following buildings which collectively encompass 29,516 sq. ft.: Transmitting and Admin, Power Plant Building, Water Pump House, Fuel Pump House, Maintenance and Storage Warehouse, and Guard House	US AIRS, FINDS, ECHO, power plant	International Broadcasting Bureau	Tinian	N	Y
42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	8TH AVENUE TINIAN, MP 96952 Registry ID: 110038765716 Current Owner: Department of Public Lands Property Descriptio n : Currently unoccupied 1960's through 1999 petroleum storage for power plant Additional info: A Phase I was conducted in 2007 and found cleanup is required at the site (0.23 ac). Cleanup has not been initiated. COPC is PP.	FINDS, Brownfields	Former CUC Property Tract #44-14	Tinian	N	Y
42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	San Jose Village P.O. BOX 464 TINIAN ISLAND, MP 96952 Facility Registry ID : 110024539052 Activity Date: 2005-03-15 00:00:00 Activity Status Date : Not reported Activity Group: Compliance Monitoring Activity Type: Inspection/Evaluation Activity Status: Not reported	US AIRS	Telesource CNMI	Tinian	N	Y
42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	NORTH FIELD TINIAN, MP 96952 Registry ID: 110028207802 AIR SYNTHETIC MINOR	FINDS	Robert E Kamosa Transmitting Station (International Broadcasting Bureau)	Tinian	N	Y
42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	MAGPO TINIAN, MP 96952 Latitude: 14.59156, Longitude: 145.38889 Grant Type: Petroleum Accomplishment T y p e : Phase I Environmental Assessment Start Date: 08/01/2007 00:00:00 Completion Date: 09/28/2007 00:00:00 Current Owner: Department of Public Lands Property Description : pre 1969 unknown 1969 to current Quarry operations currently unoccupied FINDS Registry ID: 110038765707	US Brownfields, FINDS	Western Equipment Quarry Lot 250 T 01	Tinian		
42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	MAIN ST BAR K RANCH OFFICE TINIAN, MP 96952 FINDS/ECHO Registry ID: 110064467731 EPA ID: MPR000000182 Owner/operator na m e : TONY YAMAUCHI CNMI Owner/operator ad d r e s s : PO BOX 130 Violation Status: No violations found	FINDS, ECHO, RCRA NG/NLR	Micronesian Development Co. Inc.	Tinian		
42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	MAIN VILLAGE ROAD TINIAN, MP 96952 ICIS Enforcement Actio n I D : 09-2003-0121 ICIS FRS ID: 110015755379 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) FINDS/ECHO Registry ID: 110015755379	ICIS, FINDS, ECHO	Myong Doog Service Station	Tinian		Y
42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	ONE BROADWAY TINIAN, TT 96952 Registry ID: 110028207768	ECHO	Dynasty Hotel and Casino	Tinian		

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42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	PINA QUARRY TINIAN, MP 96952 FINDS Registry ID: 110064467893 ECHO Registry ID: 110064467893 RCRA EPA ID: MPR000128769 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Owner/operator na m e : CNMI EMERGENCY MNGMT OFFICE Owner/Op start da t e : 05/01/1998 Transporter of haz a r d o u s w a s t e : Yes Treater, storer or d i s p o s e r o f H W : Yes Waste name: IGNITABLE WASTE Waste name: REACTIVE WASTE Violation Status: No violations found	FINDS, ECHO, RCRA NG/NLG	EMO Tinian UXO Treatment Disposal Site	Tinian		
42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	SAN JOSE VILLAGE PO BOX 452 TINIAN, MP 96952 FINDS/ECHO Registry ID: 110055500202	FINDS, ECHO	Commonwealth Utilities Corp.	Tinian	N	Y
42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	SAN JOSE VILLAGE PO BOX 452 TINIAN, MP 96952 FINDS/ECHO Registry ID: 110043671354 LEAKING UNDERGROUND STORAGE TANK - ARRA	FINDS, ECHO	Mobil Oil Mariana Islands Inc. Tinian Bulk Plant	Tinian	N	Y
42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	SAN JOSE VILLAGE DISTRICT TINIAN, MP 96952 ICIS Enforcement Actio n I D : 09-2006-0029 FRS ID: 110024539052 Enforcement Actio n T y p e : CWA 311B6B1 AO For Class I Penalty - SPCC Expedited Settlement Program FINDS/ECHO Registry ID: 110024539052 AIR MAJOR	ICIS, FINDS, ECHO	Telesource Oil	Tinian		
42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	TINIAN SEAPORT SAN JOSE, MP 96952 Registry ID: 110070111888	FINDS, ECHO	Bridge Investment Group Tinian Terminal	Tinian	N	Y
42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	TINIAN, MP 96952 FINDS/ECHO Registry ID: 110013025564 Environmental Interest/Information System: COMMUNITY WATER SYSTEM	FINDS, ECHO	Tinian Crystal Clear	Tinian		
42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	TINIAN, MP 96952 FINDS/ECHO Registry ID: 110012955338 Environmental Interest/Information System: COMMUNITY WATER SYSTEM	FINDS, ECHO	Tinian Ice and Water	Tinian		
42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	TINIAN, MP 96952 FINDS/ECHO Registry ID: 110046979016 Environmental Interest/Information System: COMMUNITY WATER SYSTEM	FINDS, ECHO	Tinian Island Water Supply	Tinian		
42	CNMI LUP Support EDR ZIP/PLUS Report 96952	EDR	WATER COMPANY TINIAN, MP 96952 FINDS/ECHO Registry ID: 110013025975 Environmental Interest/Information System: COMMUNITY WATER SYSTEM	FINDS, ECHO	SN-Five Water Co.	Tinian		
43	EDR Historical Topo Map Report: Tinia	EDR	Tinian North Field Area Map	Airfield, airport	West Field/West Tinian Airport	Tinian	N	Y
44	EDR Historical Topo Map Report: Saipan 1	EDR	Saipana Laolao Area Map	Quarry	Sabana Quarry	Saipan	N	Y
44	EDR Historical Topo Map Report: Saipan 1	EDR	Saipana Laolao Area Map	Pit	Sabana Pit	Saipan	N	Y
51	CNMI LUP Support EDR ZIP/PLUS Report 96951	EDR	ADJ TO SASANHAYA BAY ON THE EASTERN HARBOR SONGSONG VILLAGE, MP 96951 EPA ID: MPR000129023 Owner/operator na m e : COMMONWEALTH PORTS AUTHORITY Waste name: IGNITABLE WASTE, LEAD, BENZENE Registry ID: 110064436034 HAZARDOUS WASTE BIENNIAL REPORTER	RCRA-CESQG, FINDS, ECHO	Mobile Oil Mariana Islands Inc. Rota Bulk Plant	Rota	N	Y

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51	CNMI LUP Support EDR ZIP/PLUS Report 96951	EDR	P.O. BOX 1101 ROTA, MP 96951 Registry ID: 110028207090 Violation Status: No violations found	FINDS	Guam Pacific Power Inc.	Rota	N	Y
51	CNMI LUP Support EDR ZIP/PLUS Report 96951	EDR	PO BOX 1166 SONGSONG, MP 96951 Owner/operator na m e : COMMONWEALTH PORTS AUTHORITY EPA ID: MPR000128827 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Violation Status: No violations found Registry ID: 110064467955	RCRA NonGen, FINDS, ECHO	Songsong Village	Rota	N	Y
51	CNMI LUP Support EDR ZIP/PLUS Report 96951	EDR	P.O. BOX 962, DISTRICT 4 SONGSONG VILLAGE, ROTA, MP 96951 Registry ID: 110028207036	FINDS	Tom's Enterprise	Rota	N	Y
51	CNMI LUP Support EDR ZIP/PLUS Report 96951	EDR	MSGR LOUIS ANTONELLI RD AS NIEVES VILLAGE, MP 96951 EPA ID: MPR000128942 Owner/operator na m e : GPPC INC Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Violation Status: No violations found Registry ID: 110064468044	RCRA NonGen, FINDS, ECHO	GPPC Inc. as Nieves Village Headquarters	Rota	N	Y
51	CNMI LUP Support EDR ZIP/PLUS Report 96951	EDR	CUC ROTA POWER PLANT PCB SONGSONG VILLAGE, MP 96951 Site ID: 909131 EPA ID: MPN000909131 Start Date: 2013-04-13 Finish Date: 6/25/2013 Registry ID: 110055500195 COMMUNITY WATER SYSTEM	SEMS, FINDS, ECHO	CUC Rota Power Plant	Rota	N	Y
51	CNMI LUP Support EDR ZIP/PLUS Report 96951	EDR	ROTA HIGH SCHOOL & TINIAN HIGH SCHOOL ROTA, MP 96951 Registry ID: 110014324454 SUPERFUND (NON-NPL)	SEMS, FINDS	Mariana Islands Laboratory Chemicals	Rota	N	Y
51	CNMI LUP Support EDR ZIP/PLUS Report 96951	EDR	ROTA, MP 96951 Registry ID: 110046979141 COMMUNITY WATER SYSTEM	FINDS, ECHO	Rota Island Water System	Rota	N	N
51	CNMI LUP Support EDR ZIP/PLUS Report 96951	EDR	SONGSONG VILLAGE, MP 96951 EPA ID: MPP000200125 Owner/operator na m e : USEPA CUC ROTA REMOVAL Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste	RCRA NonGen, ECHO	US EPA CUC Rota Removal	Rota	N	Y
51	CNMI LUP Support EDR ZIP/PLUS Report 96951	EDR	SAN FRANCISCO BORJA ROAD ROTA, MP 96951 Registry ID: 110037241384 LEAKING UNDERGROUND STORAGE TANK - ARRA	FINDS	Sasanhaya Mobil Service Station (CNMI-MOBIL-002)	Rota	N	Y
51	CNMI LUP Support EDR ZIP/PLUS Report 96951	EDR	SINAPALO ROTA, MP 96951 Registry ID: 110022499394 COMMUNITY WATER SYSTEM	FINDS, ECHO	Rota Crystal	Rota	N	N
51	CNMI LUP Support EDR ZIP/PLUS Report 96951	EDR	SINAPALU ROTA, MP 96951 Registry ID: 110013026000 COMMUNITY WATER SYSTEM	FINDS, ECHO	Rota Resort & Country Club	Rota	N	N

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51	CNMI LUP Support EDR ZIP/PLUS Report 96951	EDR	SONGSONG VILLAGE ROTA, MP 96951 Enforcement Actio n I D : 09-2007-0078 FRS ID: 110055500195 Latitude in Decima l D e g r e e s : 14.1397 Latitude in Decima l D e g r e e s : 14.1397	ICIS	Commonwealth Utilities Corp (Rota Plant)	Rota	N	Y
51	CNMI LUP Support EDR ZIP/PLUS Report 96951	EDR	ROTA, GU No other information provided	ERNS	CNMI	Rota	Y	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	2ND FLOOR MORGAN BLDG SAN JOSE, MP 96950 Site ID: 906021 EPA ID: MPN000906021 NPL: Not on the NPL Non NPL Status: Removal Only Site (No Site Assessment Work Needed) Registry ID: 110015651490 SUPERFUND (NON-NPL)	SEMS, FINDS	CNMI Pesticide Site	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ROUTE 30 SAN ROQUE, SAIPAN, MP 96950 Registry ID: 110070101192	FINDS, ECHO	Kensington Hotel Saipan/Micronesia Resort In Corp.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ROUTE 30 SAN ROQUE SAIPAN, MP 96950 Registry ID: 110070050699	FINDS, ECHO	Saipan Globe Hotel	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	P.O. 501969 SAIPAN, MP 96950 Registry ID: 110070047899	FINDS, ECHO	Proper Grand Sugar King Hotel & Dorms, Gualo Rai	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ACHUGAO SAIPAN, MP 96950 Registry ID: 110050571895 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Aqua Resort Hotel	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ACHUGAO SAIPAN, MP 96950 COMMUNITY WATER SYSTEM	FINDS, ECHO	Aqua Resort Staff Housing	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ACHUGAO SAIPAN, MP 96950 FRS ID: 110022323724 Enforcement Actio n I D : 09-2005-0061 Enforcement Actio n F o r u m D e s c : Administrative - Formal Registry ID: 110050571840/110022323724 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	ICIS, FINDS, ECHO	Noah Spn./Plumeria Resort Hotel	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AFETNA RD., SAN ANTONIO SAIPAN, MP 96950 Registry ID: 110059072079 COMMUNITY WATER SYSTEM	FINDS, ECHO	Joo Ang Apparel	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AGINGAN POINT SAIPAN, MP 96950 Action Name: Commonwealth Utilities (Sadog Tasi) FRS ID: 110024584172 Enforcement Actio n I D : 09-2008-1504 Enforcement Actio n T y p e : CWA 309A AO For Compliance Latitude in Decima l D e g r e e s : +16.006944 Longitude in Decim a l D e g r e e s : +145.498222 Registry ID: 110024584172 Facility ID: MP0020028 Program: CWA Facilities	ICIS, FINDS, ECHO, EPA Watch List	Agingan STP	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AGINGAN POINT, POB 504969 SAIPAN, MP 96950 Registry ID: 110039164285	FINDS	International Broadcasting Bureau	Saipan	N	Y

Doc #	Doc Name	Reference Source	Summary of Document	Type	Google Earth Link	Island	More Info Needed? (Y/N)	Site of Interest (Y/N)
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	TINIAN, MP 96950 Grant Type: Assessment Parcel size: 1753 Latitude: 14.8559507 Longitude: 145.5635379 Accomplishment T y p e : Phase I Environmental Assessment Cleanup Required: N Other contams fou n d d e s c r ip t i o n : UXO Property Descriptio n : Aguiguan Island was used extensively for sugarcane and other crops cultivation for export at the time.Facilities constructed to support the crop cultivation included: housing, water catchment and storage, and a dock for offshore loading onto transport ships. On June 11, 1944 at the onset of WW II, preliminary aerial bombing began in the Marianas by the U.S. forces. Given the close proximity to Saipan and Tinian, Aguiguan was most likely a subject target during the bombing. Currently, the island is uninhabited. Registry ID: 110064566072	US Brownfields, FINDS	Aguiguan Island	NI: Aguiguan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AIRPORT RD SAIPAN INTL AIRPORT WAREHOUSE DOOR NO 3 EPA ID: MPR000050583 Classification: Non-GeneratorDescription: Handler: Non-Generators do not presently generate hazardous waste Violation Status: No violations found Registry ID: 110064467740 Latitude: 15.128358 Longitude: 145.72605	RCRA Non-Gen, FINDS, ECHO	Independent Freight Services	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AIRPORT ROAD Registry ID: 110050572787 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	LSG Flight Sky Chef	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AIRPORT ROAD Registry ID: 110052800331 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	LSG VIP Lounge	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AIRPORT RD DANDAN Registry ID: 110000746710 Latitude: 15.128358 Esri, © OpenStreetMap contributors, HERE, Garmin | DigitalGlobe Data DictionaryMOBIL OIL MARIANA ISLANDS, INC (SAIPAN AVIATION DEPOT) AIRPORT RD DANDAN, SAIPAN, MP 96950 Facility caveat FRS ID: 110000746710 EPA Region: 09	TRIS, FINDS, ECHO	Mobil Oil Mariana Islands Inc. (Saipan Aviation Dep)	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AIRPORT PTI Registry ID: 110032615374 Registry ID: 110032615409 Registry ID: 110032624266	FINDS	USTPO - FY07 Airport PTI	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ALAIHAI ST EPA ID: MPR000128785 Owner/Op start da t e : 03/15/1972 Waste name: CORROSIVE WASTE Violation Status: No violations found Registry ID: 110064467919 Registry ID: 110017715301	RCRA CESQG, FINDS, ECHO	Younis Art Studio Inc	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ALU RD ACROSS JR HIGH, SAN ANTONIO Registry ID: 110059039785 COMMUNITY WATER SYSTEM	FINDS, ECHO	Michigan Inc	Saipan	N	N

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	1313 ANATAHAN DR. Site ID: 900771 EPA ID: MPN000900771 NPL: Not on the NPL Non NPL Status: Combined PA/SI OngoingRegistry ID: 110067353759 SUPERFUND (NON-NPL)	SEMS, FINDS	Mobil Oil Mariana Islands Terminal	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ASLITO & CHALAN MONSIGNOR GUERRERO, SAIPAN Recipient Name: Northern Mariana Islands Division of Environmental Quality Grant Type: Assessment Property Number: TR 22857-14-R2 Parcel size: .3 Latitude: 15.14417 Longitude: 145.72516 Accomplishment T y p e : Phase I Environmental Assessment Start Date: 08/17/2009 Completion Date: 02/26/2010 Current Owner: Bernice P. Diaz Soil affected: Y The property had been occupied by the former He Cheng Corporation, a silk-screen printing and garment factory. The DEQ had issued the former He Cheng an administrative order to cease the discharge of screen printing solvents into its septic tank. This discharge into the former He Cheng an administrative order to cease the discharge of septic tank is an area of concern. Solvents used by He Cheng to clean silk screens that had used oil-based inks included mineral turpentine, textile printing solvent, and toluene.	US Brownfields, FINDS Garment factory	He Cheng Corp	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110028207107 Registry ID: 110032624211	FINDS	Win Guide Color Printing	Saipan	Y	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BANZAI CLIFF ROAD SABANETA, MP 96950 EPA ID: MPR000114892 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Historical Generators: CESQG Violation Status: No violations found Registry ID: 110064467820	RCRA NonGen, FINDS, ECHO	CNMI Emergency Management Office	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ERNS 2004722473	ECHO	Beach Row	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD SAN JOSE	MLTS	Alexander Drilling	Saipan	Y	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD SADDOK TASI, MP 96950 Site ID: 906045 EPA ID: MPN000906045 NPL: Not on the NPL Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information Registry ID: 110015778229	SEMS-ARCHIVE, FINDS, garment factory	Concord Garment Manufacuting Corp./Trans Asia G	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD SAN JOSE OLEAI, MP 96950 EPA ID: MPR000055384 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Historical Generators: LQG Violation Status: No violations foundRegistry ID: 110064467759	RCRA NonGen, FINDS, ECHO	Division of Environmental Quality	Saipan	N	Y

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD GARAPAN, MP 96950 Enforcement Actio n I D : 09-2002-0006 FRS ID: 110010590253 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110010590253	ICIS, FINDS, ECHO	Garapan Mobil SVC STA	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD Registry ID: 110070032263	FINDS, ECHO	HPIL Resort Saipan	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD SAN JOSE, MP 96950 EPA ID: MPR000129064 Waste name: IGNITABLE WASTE, LEAD, MERCURY Facility Has Received Notices of Violations: Area of violation: Generators - Pre-transport, TSD IS-Container Use and Management, Used Oil - Generators Registry ID: 110054863607	RCRA SQG, FINDS, ECHO	Joeten Motor Company Inc.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD SUSUPE VILLAGE EPA ID: MPR000128983 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Owner/operator na m e : ASIA PACIFIC HOTELS INC DBA KANOA RESORT Waste name: IGNITABLE WASTE Historical Generators: Site name: SAIPAN GRAND HOTEL Waste name: IGNITABLE WASTE Violation Status: No violations found Registry ID: 110064468080	RCRA NonGen, FINDS, ECHO	Kanoa Resort Saipan	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD PUERTO RICO, MP 96950 Property Number: 114 D 01 Parcel size: 2.8 Latitude: 15.22017 Longitude: 145.73228 Accomplishment T y p e : Phase I Environmental Assessment Completion Date: 09/28/2007 00:00:00 Current Owner: Department of Public Lands Petro products fou n d : Y Soil affected: Y Currently unoccupied. 1990's -2006 - pre-cast concrete operations and used oil storage 1980's vacant 1970's potentially a substation or powerplant. Registry ID: 110038716182	US Brownfields, FINDS	LOT # 114 D 01 (FORMERLY SOLID BUILDERS)	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD, SAN JOSE Registry ID: 110043466987	FINDS	Marianas Printing	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD, SAN JOSE SUSUPE, MP 96950 EPA ID: MPR000000075 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Owner/operator na m e : FABRICLEAN OF CNMI INC Historical Generators: MANY VIOLATIONS Registry ID: 110064467713	RCRA NonGen, FINDS, ECHO	Marianas Cleaners	Saipan	N	Y

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD CHALAN PIAO, MP 96950 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Owner/operator na m e : TANG YUK CHUN Historical Generators: Violation Status: No violations found Registry ID: 110064467866	RCRA NonGen, FINDS, ECHO, garment factory	Marianas Garment Manufacturing	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH RD, PUERTO RICO Registry ID: 110045606509	FINDS, ECHO	Mobil Soil Saipan Terminal	Saipan		
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH RD Enforcement Actio n I D : 09-1999-0040 FRS ID: 110045606509 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST)	ICIS	Mobile Suspe	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH RD SAN ANTONIO EPA ID: MPR000086900 Classification: Non-Generato Description: Handler: Non-Generators do not presently generate hazardous waste Historical Generators: CESQG, SPENT HALOGENATED SOLVENTS, no violations Registry ID: 110012229481 AIR MINOR	RCRA NonGen, FINDS, ECHO	NET Corp.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD NEAR SAN JOSE Enforcement Actio n I D : 09-2001-0004 FRS ID: 110010755557 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110010755557	ICIS, FINDS, ECHO	Oleai Mobil Service Station	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD (SAN ANTONIO) BEACH RD NEAR AIRPORT Enforcement Actio n I D : 09-2003-0078 Enforcement Actio n I D : 09-2001-0013 FRS ID: 110015761362 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110015761362	ICIS, FINDS, ECHO	Pacific Island Club Resort	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD (SUSUPE VILLAGE) Enforcement Actio n I D : 09-2003-0010 FRS ID: 110014413768 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110014413768 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	ICIS, FINDS, ECHO	Saipan Grand Hotel	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH RD - PUERTO RICO Program Type: GasolineBusiness Activity: Non-Renewable Fuels Importer, PADD Importer Company Name: MOBIL OIL MARIANA ISLAND INC Facility ID: 11187 Facility Activity: Non Renewable Fuels Importer	FUELS PROGRAM	Saipan Terminal	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD SUSUPE, MP 96950 Registry ID: 110037247609	FINDS	Shell Gas Station Susupe	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD Enforcement Actio n I D : 09-2001-0010 FRS ID: 110010752453 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110010752453	ICIS, FINDS, ECHO	Shell Koblerville Service Station	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110031019724 Latitude: 15.224858 Longitude: 145.73491	ECHO	Shell Puerto Rico Terminal	Saipan	N	Y

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD (SUSUPE VILLAGE) Enforcement Actio n I D : 09-2003-0032 FRS ID: 110014413697 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110014413697	ICIS, FINDS, ECHO	Supreme Court Judicial Complex	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH ROAD CHALAN KANOA, MP 96950 Enforcement Actio n I D : 09-2003-0120 FRS ID: 110015754469 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110015754469	ICIS, FINDS, ECHO	20th Filling Station	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEACH RD AFETNAS, MP 96950 EPA ID: MPN000128678 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Historical Generators: CESQG, IGNITABLE WASTE, violations reported Registry ID: 110064467688 Registry ID: 110037227970	RCRA NonGen, FINDS, ECHO	United International Corp.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BEHIND BLUE RIBBON FEED AND FARM SUPPLY AS LITO VILLAGE, MP 96950 Site ID: 906046 EPA ID: MPN000906046 NPL: Not on the NPL Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information	SEMS-ARCHIVE	He Cheng Corp./Everbright Corp.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BETWEEN CHALAN PALE ARNOLD AND BEACH ROAD Property Number: 114 D 01 Parcel size: 2.8 Latitude: 15.223695 Longitude: 145.73635 Grant Type: Petroleum Accomplishment T y p e : Phase I Environmental Assessment Completion Date: 09/28/2007 Current Owner: Department of Public Lands 1970's appears undeveloped 1990's to present container and drum storage (used oil)	US Brownfields, FINDS	LOT # 114 D 01 (FORMER CLEAN EARTH)	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	BIBENDA LN Facility ID: TTR000128892 Program: RCRA Facilities List date: March 2013 RCRA Watch List EPA ID: MPR000128892 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Waste name: IGNITABLE WASTE Area of violation: Generators - Pre-transport Area of violation: TSD IS-Container Use and Management Area of violation: Used Oil - Generators Registry ID: 110031349299	EPA Watch List, RCRA NonGen, FINDS, ECHO	Aron Corp.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PO BOX 5605 UNKNOWN (County), XX 96950 ERNS 2009923245	ERNS		Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	P.O. BOX 502412 Registry ID: 110046303022	FINDS	B&R Corp.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PO BOX 10001, PMB 102 Registry ID: 110037277265	FINDS, ECHO	Basula Produkto	Saipan	N	N

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	P.O. BOX 500791 1 MILE NORTH OF MARPI LANDFILL, MP 96950 LAT15 DEG 16MIN LONG 145 DEG 49MIN EPA ID: MPR000128710 Description: Handler is engaged in the treatment, storage or disposal of hazardous waste Waste name: IGNITABLE WASTE, REACTIVE WASTE, LEAD Registry ID: 110063992096 Registry ID: 110064467875	RCRA-TSDF, RCRA NonGen, FINDS, ECHO	CNMI Dept. of Public Safety	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PO BOX 502165 Registry ID: 110037234579	FINDS	CNMI Judicial Branch	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PO BOX 500266 Registry ID: 110037277256	FINDS, ECHO	Coca-Cola Bottling Co.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	P.O. BOX 500409 CK Enforcement Actio n I D : 09-2005-A051 FRS ID: 110015753601 Enforcement Actio n T y p e : CAA 113A Admin Compliance Order (Non-Penalty)	ICIS, US AIRS	Commonwealth Health Center	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	COMMONWEALTH PORTS AUTHORITY INCINERATOR PO BOX 501055 Registry ID: 110021036591 AIR MINOR	US AIRS, FINDS, ECHO	Commonwealth Ports Authority	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	P.O. BOX 500609 Enforcement Actio n I D : 09-2009-5025 FRS ID: 110038391558 Enforcement Actio n T y p e : RCRA 3008A AO For Comp And/Or Penalty Registry ID: 110038391558	ICIS, FINDS, ECHO	Construction Material and Supply, Inc.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	NAFTAN RD Enforcement Actio n I D : 09-2009-1002 FRS ID: 110012701362 Enforcement Actio n T y p e : CWA 311B6B1 AO For Class I Penalty - SPCC Expedited Settlement Program Latitude in Decima l D e g r e e s : 15.117217 Longitude in Decim a l D e g r e e s : 145.749933 Registry ID: 110012701362 TRIS 1016459183	ICIS, FINDS, ECHO, TRIS	Hawaiian Rock Products	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	P.O. BOX 502371 Enforcement Actio n I D : 09-2008-40 FRS ID: 110037079826 Enforcement Actio n T y p e : FIFRA 14A Action For Penalty Registry ID: 110037079826	ICIS, FINDS, ECHO	Japan Water Systems CNMI Corp.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	P.O. BOX 500066 Enforcement Actio n I D : 09-2010-3580 FRS ID: 110041211872 Enforcement Actio n T y p e : EPCRA 325 Action for Penalty - Expedited Settlement Program Registry ID: 110041211872	ICIS, FINDS, ECHO	World Resort	Saipan	N	Y

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN PALE ARNOLD-MARPI RD, TANAPAG Property Number: Lot No. 108 E 05 Parcel size: 1.5 Grant Type: Petroleum Accomplishment T y p e : Phase I Environmental Assessment Completion Date: 10/06/2011 Groundwater affec t e d : Y Soil affected: Y In 2006, the US Environmental Protection Agency and the CNMI Division of Environmental Quality conducted the Tanapag Tank Removal Project led and funded by EPA. Six fuel tanks were dismantled and removed; the residual petroleum product left in the tanks was properly disposed. Contaminated soils saturated with petroleum were also excavated and disposed of properly. The project included the removal of tank #13 and #14 sitting on properties adjoining the Falig Property. Registry ID: 110063210742	US Brownfields, FINDS	Angel Falig Property	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN KIYA, SAIPAN Parcel size: .52 Latitude: 15.1630474 Longitude: 145.7217235 Grant Type: Hazardous Accomplishment T y p e : Phase I Environmental Assessment Completion Date: 03/09/2011 Soil affected: Y Accomplishment T y p e : Phase II Environmental Assessment Completion Date: 01/09/2013 Registry ID: 110069349994	US Brownfields, FINDS	Former Joenel's Auto Repair	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN MSGR MARTINEZ-AS PERDIDO RD Property Number: 036 I 03 Parcel size: .93 Latitude: 15.1293666666667 Longitude: 145.712455555556 Grant Type: Petroleum Accomplishment T y p e : Phase I Environmental Assessment Completion Date: 03/30/2012 Current Owner: Jerry P. Kintol Groundwater affec t e d : Y Other contaminant s f o u n d : Y Other contams fou n d d e s c r ip t i o n : Ethylbenzene, Xylene The KV-1 site is currently still under investigation conducted by EPA Region 9 and DEQ to determine the extent of the groundwater contamination.	US Brownfields, FINDS	Kintol Site	Saipan	N	Y

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Continental Drive, Airport/Dandan Property Number: 028 K 11 Parcel B Parcel size: 1.15 Latitude: 15.1277777 Longitude: 145.7328025 Grant Type: Petroleum Accomplishment T y p e : Phase I Environmental Assessment Completion Date: 02/26/2010 Lead contaminant f o u n d : Y Petro products fou n d : Y Soil affected: Y The site is currently an uncontrolled surface dumping ground for municipal waste, tires, construction debris, bottles, and cars. The drums are believed to belong to the US milatary when the site was being used as an airport. At the time of the site reconnaissance in 2005, the drums could not be located. Possible UXO casings were observed at the time of the site reconnaissance as well. Accomplishment T y p e : Phase II Environmental Assessment Completion Date: 03/09/2013	US Brownfields	CPA Buried Drum Site	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CONTINENTAL RD Property Number: Lot No. 028 K 09 Parcel size: 31.51 Latitude: 15.1277777 Longitude: 145.7328025 Grant Type: Petroleum Accomplishment T y p e : Phase II Environmental Assessment Completion Date: 03/09/2013 Petro products fou n d : Y Soil affected: Y The proposed CPA commercial site is located on a former military airfield known as Isley Airfield as shown on aerial photos dating back to 1945-1946 which looks to have been part of a former aircraft parking area. The CPA Buried Drum Site is a subset parcel of the CPA Proposed Commercial Site parcel Registry ID: 110063210733	US Brownfields, FINDS	CPA Commercial Site	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CROSS ISL RD AT VESTCOR VILLAGE VESTCOR OFFICE SPACE 9 EPA ID: MPR000128876 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Owner/operator na m e : CHARLES T POLEVICH Waste name: IGNITABLE WASTE, CORROSIVE WASTE, REACTIVE WASTE Area of violation: Transporters - Manifest and Recordkeeping, Generators - Manifest Enforcement Actio n I D : 09-2012-0005 FRS ID: 110023052747 Enforcement Actio n T y p e : RCRA 3008A AO For Comp And/Or Penalty - Subtitle C Expedited Settlement Program Latitude in Decima l D e g r e e s : 15.177801 Longitude in Decim a l D e g r e e s : 145.750967 Registry ID: 110023052747 Registry ID: 110064468008	RCRA NonGen, ICIS, FINDS, ECHO	Allied Pacific Environmental Consulting	Saipan	N	Y

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CORAL TREE AVE AND COCONUT ST 1 GARAPAN GARAPAN, MP 96950 EPA ID: MPR000129130 Enforcement Actio n I D : 09-2008-0016 Owner/operator na m e : VAL BOLIVAR Waste type: Lamps Waste name: MERCURY Violation Status: No violations found FRS ID: 110050581615Enforcement Actio n T y p e : CWA 311B6B1 AO For Class I Penalty - SPCC Expedited Settlement Program Latitude in Decima l D e g r e e s : 15.208158 Longitude in Decim a l D e g r e e s : 145.719127 Registry ID: 110050581615 Registry ID: 110070121386	RCRA-SQG, ICIS, FINDS, ECHO	Fiesta Resort Saipan	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Program: CWA Facilities Enforcement Actio n I D : 09-2008-1504 FRS ID: 110024584163 Enforcement Actio n T y p e : CWA 309A AO For Compliance Latitude in Decima l D e g r e e s : +16.006944 Longitude in Decim a l D e g r e e s : +145.49822 Enforcement Actio n I D : 09-2007-01352 Enforcement Actio n T y p e : CWA 309A AO For Compliance Enforcement Actio n I D : 09-1989-N004Enforcement Actio n T y p e : CWA 309A AO For Compliance	EPA Watch List, ICIS	Sadog Tasi WWTP	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	HAFADAI BEACH Enforcement Actio n I D : 09-2011-3516 FRS ID: 110013025074 Enforcement Actio n T y p e : EPCRA 325 Action for Penalty - Expedited Settlement Program Registry ID: 110013025074 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	ICIS, FINDS, ECHO	Hafadai Beach Hotel	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	IFET DRIVE CAPITOL HILL Parcel size: 1.4 Latitude: 15.2010717 Longitude: 145.7556446 Grant Type: Hazardous & Petroleum Accomplishment T y p e : Phase I Environmental Assessment Completion Date: 03/01/2011 Current Owner: Department of Public Lands Lead contaminant f o u n d : Y Other metals found : Y Soil affected: Y Soil cleaned up: Y The Edoni Site is burrow pit which the U.S. Military used as a waste disposal dump site. Military vehicle parts, empty cylinder gas tanks and other debris were dumped into the pit. The pit is also contaminated with PCB tainted soil and lead contaminated soil. Registry ID: 110064692747	US Browfields, FINDS	Edoni Site	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ISLEY FIELD Site ID: 908795 EPA ID: MPN000908795 NPL: Not on the NPL Non NPL Status: Removal Only Site (No Site Assessment Work Needed) Enforcement Actio n I D : 09-2007-0078 FRS ID: 110038387876 Latitude in Decima l D e g r e e s : 15.1188 Longitude in Decim a l D e g r e e s : 145.7294 Registry ID: 110038387876	SEMS, ICIS, FINDS, ECHO	CUC Isley Field	Saipan	N	Y

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	LOWER BASE 1000/PHILIPINE SEA GARAPAN, MP 96950 EPA ID: MPD980798318 Site ID: 902806 Deleted Date: 1986-03-07 Latitude: 15.199999999999999 Longitude: 145.75 NPL Status: Deleted from the Final NPL Substance: POLYCHLORINATED BIPHENYLS The PCB Warehouse on Saipan is a temporary shelter built to store about 1,400 gallons of transformer fluid containing up to 25,000 parts per million ofPCBs. The fluid is stored in drums awaiting shipment or off-site disposal. The storage site is adjacent to the Philippine Sea, an area subject to tropical storms. PCB contamination of drinking water and marine resources used for food is of concern. This is the top priority site in the Northern Mariana Islands. Status September 8, 1983): A remedial investigation of the site conducted by EPA in December 1982 revealed the presence of 21 drums of PCB-contaminated oil and 3 crates of sodium arsenite. Drums were found to be intact, and there was no evidence of any reported spills or leaks. In 1984, EPA used CERCLA emergency funds to remove the 21 drums of PCB wastes and 3 crates of sodium arsenite. Registry ID: 110013800841	Delisted NPL, SEMS, PRP, FINDS	PCB Warehouse	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MAGPI PARKWAY Property Number: 58 A 05 Parcel size: 38.27 Latitude: 15.27091 Longitude: 145.80274 Grant Type: Hazardous Accomplishment T y p e : Phase I Environmental Assessment Completion Date: 10/09/2007 Current Owner: Department of Public Lands Other contams fou n d d e s c r ip t i o n : unexploded ordnance Soil affected: Y Pre 1940's agricultural (sugar cane) WW II Japanese and US munitions storage post WW II munitions open burning and disposal currently agricultural (grazing) Registry ID: 110060374278	US Brownfields, FINDS	Lot # 58 A 05	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MANAGAHA ISLAND ISLETA MANAGAHA, MP 96950 Property Number: 023 B 10 Parcel size: 13.2 Accomplishment T y p e : Phase II Environmental Assessment Start Date: 11/01/2012 Soil affected: Y There are ten mounds containing drums and other metal s, one area contained a pile of decomposing marine batteries, and one area that contained potentially war era bullets. Registry ID: 110055130095	US Brownfields, FINDS	Managaha Buried Drum Site	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Enforcement Actio n I D : 09-2008-0008 FRS ID: 110032960865 Facility Name: DEPARTMENT OF PUBLIC SAFETY Enforcement Actio n T y p e : RCRA 7003 AO For Imminent Hazard	ICIS	Marpi Point	Saipan	N	Y

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MARPI Parcel size: 11.86 Latitude: 15.264996 Longitude: 145.78852 Grant Type: Petroleum Accomplishment T y p e : Phase I Environmental Assessment Petro products fou n d : Y Soil affected: Y In January 2014, DEQ followed up on a report of illegal dumping and disposal of used oil drums at one of the abandoned building at the site. The inspection discovered 11 drums in a building with some badly corroded and waste oil was released into the environment. Since the discovery, the site has been barricaded with locks and chains and no public access. Registry ID: 110069992124	US Brownfields, FINDS	Former Cow Town	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MARPI Parcel size: 11.86 Latitude: 15.264996 Longitude: 145.78852 Grant Type: Petroleum Accomplishment T y p e : Phase I Environmental Assessment Petro products fou n d : Y Soil affected: Y In January 2014, DEQ followed up on a report of illegal dumping and disposal of used oil drums at one of the abandoned building at the site. The inspection discovered 11 drums in a building with some badly corroded and waste oil was released into the environment. Since the discovery, the site has been barricaded with locks and chains and no public access. Registry ID: 110069992124	US Brownfields, FINDS	Former Cow Town	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AS MATUIS Parcel size: 4.6 Latitude: 15.248697332208051 Longitude: 145.79611394213862 A FONSI report, dated June 25, 1987, for the site indicated two 15,000 gal. AST tanks for fuel storage and a 1,000 gal. concrete UST was to be constructed for the operation of generators for the radar station facility. On August 26, 2013, DEQ conducted an inspection of a reported illegal disposal of about 25 drums of used oil in one of the abandoned buildings. Confirming the illegal disposal, some of the drums appear old while others seem to be in adequate conditions, stack piled inside the building. Registry ID: 110069992123	US Brownfields, FINDS	Former Radar Station	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MIDDLE ROAD (GARAPAN) EPA ID: MPR000128595 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Waste name: SILVER Enforcement Actio n I D : 09-2007-0050 FRS ID: 110015753601 Enforcement Actio n T y p e : RCRA 3008A AO For Comp And/Or Penalty Enforcement Actio n I D : 09-2003-0093 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110015753601 AIR MINOR	RCRA-NonGen, ICIS, FINDS, ECHO	Commonwealth Health Center	Saipan	N	Y

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Property Number: Partial of 051-A-02 Parcel size: 1.24 Accomplishment T y p e : Phase II Environmental Assessment Completion Date: 03/05/2008 Current Owner: CNMI Department of Public lands Groundwater affec t e d : Y Other contams fou n d d e s c r ip t i o n : 1,4 Dioxin Petro products fou n d : Y VOCs found: Y Current use is UXO storage area and OB/OD unit for UXO disposal. Vacant land and military use are previous uses before, during , and after WWII. Registry ID: 110038766083	US Brownfields, FINDS	Marpi Area	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN ANTONIO, MP 96950 Enforcement Actio n I D : 09-2010-3579 FRS ID: 110013024752 Action Name: Pacific Islands Club (EPCRA non-313) Latitude in Decima l D e g r e e s : 15.1316757 Longitude in Decim a l D e g r e e s : 145.693707 Registry ID: 110013024752 COMMUNITY WATER SYSTEM	ICIS, FINDS, ECHO	Pacific Island Club	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AS PERDIDO AND CHALAN MONSENIOR GUERRERO Site ID: 908773 EPA ID: MPN000908773 NPL: Not on the NPL Non NPL Status: Removal Only Site (No Site Assessment Work Needed) Registry ID: 110039147768 SUPERFUND (NON-NPL)	SEMS, FINDS	KV-1 Well Site	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PUERTO RICO Site ID: 909060 EPA ID: MPN000909060 NPL: Not on the NPL Non NPL Status: Removal Only Site (No Site Assessment Work Needed) Enforcement Actio n I D : 09-2007-0078 FRS ID: 110038387885 Enforcement Actio n T y p e : Civil Judicial Action Latitude in Decima l D e g r e e s : 15.2215 Longitude in Decim a l D e g r e e s : 145.738 Registry ID: 110038387885 Registry ID: 110043204840 SUPERFUND (NON-NPL), AIR MAJOR	SEMS, ICIS, FINDS, ECHO	CUC Puerto Rico Power Plant IV	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PUERTO RICO VILLAGE Enforcement Actio n I D : 09-2010-A016 Enforcement Actio n I D : 09-2009-0505 Enforcement Actio n I D : 09-2009-0505 FRS ID: 110000601420 Enforcement Actio n T y p e : Civil Judicial Action Envid: 1008229341 Programmatic ID: AIR MP0000006911000004 Registry ID: 110000601420	ICIS, US AIRS, TRS, FINDS, ECHO	Mobil Oil Mar (Saipan Terminal)	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SABLAN ROCK QUARRY (LOWER BASE) Enforcement Actio n I D : 09-2006-0120 FRS ID: 110022871686 Enforcement Actio n T y p e : RCRA 3008A AO For Comp And/Or Penalty Enforcement Actio n I D : 09-2005-0087 Enforcement Actio n T y p e : RCRA 7003 AO For Imminent Hazard Registry ID: 110022871686		Sabland Quarry Maintenance Yard	Saipan	N	Y

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAIPAN INTERNATIONAL AIRPORT EPA ID: MPR000128868 Waste type: Batteries, IGNITABLE WASTE, REACTIVE WASTE, etc Violations reported Enforcement Actio n I D : 09-2012-1007 FRS ID: 110022826334 Enforcement Actio n T y p e : CWA 311B6B1 AO For Class I Penalty - SPCC Expedited Settlement Program Latitude in Decima l D e g r e e s : 15.119026 Longitude in Decim a l D e g r e e s : 145.728212 Enforcement Actio n I D : 09-2008-5016 Enforcement Actio n T y p e : RCRA 3008A AO For Comp And/Or Penalty Enforcement Actio n I D : 09-2006-0045 Enforcement Actio n T y p e : RCRA 7003 AO For Imminent Hazard Enforcement Actio n I D : 09-2003-0067 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110022826334 Registry ID: 110070107087	RCRA-SQG, ICIS, FINDS, ECHO	Commonwealth Ports Authority	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAIPAN INTERNATIONAL AIRPORT Enforcement Actio n I D : 09-2005-0086 FRS ID: 110014413713 Enforcement Actio n T y p e : RCRA 7003 AO For Imminent Hazard Latitude in Decima l D e g r e e s : 15.119026 Longitude in Decim a l D e g r e e s : 145.728212 Enforcement Actio n I D : 09-2003-0035 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110014413713	ICIS, FINDS, ECHO	Commonwealth Ports Authority (Maintenance & Waste)	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAIPAN POWER PLANT (LOWER BASE) WASTEWATER TREATMENT PLANT, AGINGAN POINT ROAD Enforcement Actio n I D : 09-2007-0078 FRS ID: 110024539070 Enforcement Actio n T y p e : Civil Judicial Action Enforcement Actio n I D : 09-2007-0013 Enforcement Actio n T y p e : CWA 311C AO For Removal Enforcement Actio n I D : 09-2006-0032 Enforcement Actio n T y p e : CWA 311B6B1 AO For Class I Penalty - SPCC Expedited Settlement Program	ICIS	CUC Power Plant Lower Base	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	1 SUSUPE VILLAGE (PO BOX 500066) Enforcement Actio n I D : 09-2008-1000 FRS ID: 110032624195 Enforcement Actio n T y p e : CWA 311B6B1 AO For Class I Penalty - SPCC Expedited Settlement Program Registry ID: 110032624195	ICIS, FINDS, ECHO	Saipan World Resort	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	US BROWNFIELDS 1019910905 US BROWNFIELDS 1017428261 Parcel size: 600 Accomplishment T y p e : Phase I Environmental Assessment Completion Date: 12/28/2015 Current Owner: Department of Public Lands Other contams fou n d d e s c r ip t i o n : UXO Soil affected: Y Registry ID: 110069992162 Registry ID: 110063210715	US Brownfields, FINDS	Pina Plateau UXO Site	Saipan	N	Y

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	TITIMU AVENUE LAULAU BAY, MP 96950 Grant Type: Hazardous Accomplishment T y p e : Phase I Environmental Assessment Completion Date: 07/24/2014 Other contams fou n d d e s c r ip t i o n : UXO Soil affected: Y As a result of the large sugarcane operation on Saipan, there is reason to believe that pesticides was used for the Saipan, there is reason to believe that pesticides was used for the protection of valuable crop. This site borders with the former Kagman Airfield which had bomb bunkers or revetments for ordnance storage. A large canon gun is found within the site that was probably use during WWII. All these evidence suggest the possibility that UXOs may be present at the site. Registry ID: 110063210706	US Brownfields, FINDS	Lau Lau Eco-Tourism Nature Trail Site	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	TUN JOAQUIN ROAD FINA SISU, MP 96950 EPA ID: MPR000128819 Enforcement Actio n I D : 09-2007-0024 Owner/operator na m e : WILLIAM FONG Waste name: IGNITABLE WASTE, SPENT HALOGENATED SOLVENTS Violations reported FRS ID: 110028063547 Enforcement Actio n T y p e : RCRA 3008A AO For Comp And/Or Penalty FRS ID: 110028063547 Enforcement Actio n T y p e : RCRA 7003 AO For Imminent Hazard Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Registry ID: 110064467946 Registry ID: 110028063547	RCRA NonGen, ICIS, FINDS, ECHO	Everbright Company	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	WASTEWATER TREATMENT PLANT, SADOG TASI ROAD GARAPAN, MP 96950 Enforcement Actio n I D : 09-2007-0135 FRS ID: 110024584163 Enforcement Actio n T y p e : CWA 309A AO For Compliance Enforcement Actio n I D : 09-2007-0078 Enforcement Actio n T y p e : Civil Judicial Action	ICIS	CUC Sadog Tasi	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	WESTERN COASTLINE ISLAND OF SAIPAN GARAPAN VILLAGE, MP 96950 Latitude: 15.22257 Longitude: 145.73079 Site covers a portion of a 44-acre land tract of CNMI / Navy lease / leaseback property. The site borders Tanapag Harbor facilites, approximately 3,500 feet north of Saipan's central tourism district in the village of Garapan. Site served as a temporary disposal site for dredged materials removed by contrators for the CNMI Port Authority. A portion of the dredged material proved valuable as a resource of daily cover material. Registry ID: 110039544650	US Brownfields , FINDS, ECHO	Puerto Rico Dump	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	P.O. BOX 1220 Envid: 1017782714 Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards	US AIRS	Commonwealth Utilities (#1&2)	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN ANTONIO, MP 96950 Registry ID: 110028241506	FINDS	Coral Ocean Point Colf Course	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110046299260	FINDS	CPA Saipan Airport Incinerator	Saipan	N	Y

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	P.O. BOX 10001, PMB 807 Registry ID: 110028207018	FINDS	Dental Care	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PO BOX 10002, PMB 1171 Registry ID: 110037277274	FINDS, ECHO	Huand Zheng Corp.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	P.O. BOX 5087 GARAPAN, CN 96950 Registry ID: 110050581642 Registry ID: 110064619275	FINDS, ECHO	Hyatt Hotel	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	P.O. BOX 502912 Registry ID: 110037227998	ECHO	Island Apparel	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN LAULAU, MP 96950 Registry ID: 110041878885	FINDS	Marianas Repairs	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110040420470	FINDS	Mariana Resort	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Enforcement Actio n I D : 09-2006-0174 FRS ID: 110028237851 Enforcement Actio n T y p e : RCRA 3008A AO For Comp And/Or Penalty Registry ID: 110028237851	ICIS, FINDS, ECHO	Pacific Development	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Envid: 1017782781 Facility Registry ID : 110043204840 Air Program: Title V Permits	US AIRS	Pacific Marine (CUC Power Unit 4)	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MARPI Registry ID: 110032619735 Registry ID: 110017715285	FINDS	Pacific Medical Center	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PUERTO RICO SAIPAN, MP 96950 EPA ID: MPR000128793 Owner/operator na m e : PACIFIC MARINE AND INDUSTRIAL CORP Waste name: IGNITABLE WASTE Violation Status: No violations found Registry ID: 110064467928	RCRA SQG, FINDS, ECHO	Power Plant No 4	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110032624186	FINDS	Precision Auto and Machining Inc.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AGINGAN POINT ROAD Enforcement Actio n I D : 09-2007-0136 FRS ID: 110024584172 Enforcement Actio n T y p e : CWA 309A AO For Compliance Registry ID: 110070000379	ICIS, FINDS, ECHO	Agingan WWTP	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	VICENTE TAMAN SEMAN BLDG Registry ID: 110043250558 Registry ID: 110043251227	FINDS	Saipan Dept of Corrections	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110041212005	FINDS	Saipan Industrial Gas	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Program Type: Gasoline Company Seq. ID: 7026 Business Activity: Non-Renewable Fuels Importer, PADD Importer Company Name: MOBIL OIL MARIANA ISLAND INC	FUELS PROGRAM	Saipan Terminal	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Envid: 1017784828 Air Program: Stratospheric Ozone Protection Registry ID: 110063987048 Registry ID: 110063987039	US AIRS, FINDS, ECHO	Tan Holdings Corp.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CAPITAL HILL Registry ID: 110012955301 COMMUNITY WATER SYSTEM	FINDS, ECHO	Diamond Ice and Water	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CAPITAL HILL Registry ID: 110013022905 COMMUNITY WATER SYSTEM	FINDS, ECHO	Flame Tree Terrace Apartment	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CAPITAL HILL Registry ID: 110047799389 COMMUNITY WATER SYSTEM	FINDS, ECHO	Toms Water	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CAPITOL HILL ROAD Registry ID: 110032615427	FINDS	USTPO - FY07 Mobil UR Sadog Tasi	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ERNS 2004727431	ERNS	CFS Warehouse	Saipan	N	N

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN PIAO Registry ID: 110047799307 COMMUNITY WATER SYSTEM	FINDS, ECHO	Aqua Best	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN PIAO Registry ID: 110047705284 COMMUNITY WATER SYSTEM	FINDS, ECHO	Aqualite Water Co.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN MONSIGNOR GUERROR ROAD Registry ID: 110037236559	FINDS	CMG Mobil Service Station	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN PALE ARNOLD RD, NAVY HILL AGANA, GU 96950 EPA ID: MPR000129072 Waste name: IGNITABLE WASTE, CORROSIVE WASTE, LEAD, MERCURY, SILVER, ETC Violations recorded Registry ID: 110069546842 Registry ID: 110064468124	RCORA-LQG, FINDS, ECHO	Commonwealth Health Center	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN PALE ARNOLD ROAD, PUERTO RICO Registry ID: 110055500186	FINDS, ECHO	CUC	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN KIYA Registry ID: 110046964736 COMMUNITY WATER SYSTEM	FINDS, ECHO	Dae Yoo Corp./Suite Palms	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110052926349 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	East West Rental	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN MSGR MARTINEZ AS PERDIDO, MP 96950 Registry ID: 110061058732	FINDS, ECHO	Elite Printing	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN KANOA Registry ID: 110050522083 TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Jollibee	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN KANOA Registry ID: 110050522047 TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	KFC	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110013022344 COMMUNITY WATER SYSTEM	FINDS, ECHO	Mac Homes	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN PIAO Registry ID: 110013022433 COMMUNITY WATER SYSTEM	FINDS, ECHO	Marianas Garment Manufacturing	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN KIYA Registry ID: 110052850296	FINDS, ECHO	McDonalds	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN MONSIGNOR GUERRERO ROAD Site ID: 908274 Site ID: 909537 EPA ID: MPN000908274 EPA ID: MPN000909537 NPL: Not on the NPL Non NPL Status: Removal Only Site (No Site Assessment Work Needed) Registry ID: 110022533178 Registry ID: 110055210882 SUPERFUND (NON-NPL)	SEMS, FINDS	Northern Marianas College	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN KANO Registry ID: 110052796783 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Pacific Gardenia Hotel	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN PALE ARNOLD PUERTO RICO, MP 96950 EPA ID: MPR000128801 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Registry ID: 110064467937	RCRA NonGen, FINDS, ECHO	Pacific Marine and Industrial Copr.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN LAO LAO Registry ID: 110012955793 COMMUNITY WATER SYSTEM Registry ID: 110013026153	FINDS, ECHO	Pang Jin/David OH Barracks	Saipan	N	N

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN LAO LAO Registry ID: 110016615518 COMMUNITY WATER SYSTEM	FINDS, ECHO	Pure Water System	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN LAO LAO ECHO N/A Registry ID: 110016615536 COMMUNITY WATER SYSTEM Registry ID: 110041212247	FINDS, ECHO	S.T.A.R. Marianas, Inc.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN PIAO Registry ID: 110013022923 COMMUNITY WATER SYSTEM	FINDS, ECHO	Sablan Enterprises	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN PALE ARNOLD & LOWER BASE DRIVE PUERTO RICO VILLAGE Registry ID: 110025318243 SUPERFUND (NON-NPL)	FINDS	Saipan Lab Chem 2006	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN KANOA Registry ID: 110050573036 TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Shanny Laundry	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN MONSIGNOR GUERRO ROAD Registry ID: 110028226872	FINDS	Shell Dan Dan	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN LAU LAU Registry ID: 110050522243 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Tasi Tours Office & Bus Services	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN LAU LAU Registry ID: 110013025387 COMMUNITY WATER SYSTEM	FINDS, ECHO	Transamerica Corp.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN LAU LAU Registry ID: 110022499410 COMMUNITY WATER SYSTEM	FINDS, ECHO	Transasian Garden	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN PIAO Registry ID: 110046977330 COMMUNITY WATER SYSTEM	FINDS, ECHO	Twinkle Bright	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN HERMAN PAN DAGU, MP 96950 EPA ID: MPR000128926 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Owner/operator na m e : UMDA WHOLESALE RETAIL INC Violations reported Registry ID: 110064468035	RCRA NonGen, FINDS, ECHO, garment factory	UMDA Wholesale Retail Inc. DBA Island Apparel	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN KIYA Registry ID: 110013023085 COMMUNITY WATER SYSTEM	FINDS, ECHO	US CNMI Barracks	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN KIYA Registry ID: 110013022567 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO, garment factory	US CNMI Garment	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHALAN KIYA Registry ID: 110013025323 COMMUNITY WATER SYSTEM	FINDS, ECHO	Winners Gualorai Branch	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHARLIE DOCK PUERTO RICO EPA ID: MPD982513392 Classification: Non-Generator Registry ID: 110064468428 Handler: Non-Generators do not presently generate hazardous waste No violations found	RCRA NonGen, FINDS, ECHO	Saipan Shipping Co.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHINA TOWN Registry ID: 110046964638 COMMUNITY WATER SYSTEM	FINDS, ECHO	Angel House Ent Inc.	Saipan	N	N

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CHNL MSGR MARTINEZ AFETNAS, MP 96950 EPA ID: MPR000128744 Classification: Non-Generator Handler: Non-Generators do not presently generate hazardous waste Violations reported Owner/operator na m e : ANN LI Registry ID: 110064467884	RCRA NonGen, FINDS, ECHO	Saipan Golden Dragon Paper Prod Factory	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	WEST COAST HWY - GARAPAN Inspection Number : 1987081003379 1 Investigation Reas o n : For Cause, Follow-Up Facility Function: Storer	FTTS, HIST FTTS	Saipan Dept of Public Works	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CORNER OF ANATAHAN DR. AND GUGUAN DR. Registry ID: 110070134046	FINDS, ECHO	Isa Villas	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CORNER PUETTO ST AND INDUSTRIAL DR PORT OF SAIPAN EPA ID: MPR000129106 Owner/operator na m e : MARIANA ACQUISITION CORPORATIONS Waste name: IGNITABLE WASTE, SPENT NONHALOGENATED SOLVENTS, BENZENE Registry ID: 110064657919	RCRA-SQG, FINDS, ECHO	Marian Acquisiation Corp. DBA Island Petroleum and Energy	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	WEST CORNER OF TANAPAG HARBOR AND BEACH ST EPA ID: MPR000128967 Owner/operator na m e : COMMONWEALTH PORTS AUTHORITY Owner/operator na m e : MOBIL OIL MARIANA ISLANDS INC Waste name: IGNITABLE WASTE, LEAD, BENZENE Registry ID: 110064436025 HAZARDOUS WASTE BIENNIAL REPORTER	RCRA-CESQG, FINDS, ECHO	Mobil Oil Mariana Islands Inc. Saipan Terminal	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CPL. DERENCE JACK ROAD, GARAPAN Registry ID: 110070066298	FINDS, ECHO	Street/Road Improvement Project	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	CAPITAL HILL, MP 96950 Registry ID: 110064638726	FINDS, ECHO	DPL Cross Island Road Project: Phase IIB	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110039013288 SUPERFUND (NON-NPL)	FINDS	Saipan Sewer Waste Site CUC Power Plant 1	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MARPI ROAD BEHIND TOP FASHION, TANAPAG Registry ID: 110028207722 Registry ID: 110059071490 COMMUNITY WATER SYSTEM	FINDS, ECHO, garment factory	American Pacific Textile	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	DIV. OF PLANT INDUSTRY KAGMAN VILLAGE Site ID: 906097 EPA ID: MPN000906097 NPL: Not on the NPL Non NPL Status: Removal Only Site (No Site Assessment Work Needed)	SEMS	Saipan Pesticides 2004	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	END OF FOREST ROAD 530 Registry ID: 110009493066	FINDS	USAF Saipan Space Surveillance Station	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	FINASISU - AS LITO Registry ID: 110013022754 COMMUNITY WATER SYSTEM	FINDS, ECHO	Pelly Ent./Hafadai Water	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	FINASISU Registry ID: 110013026082 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Riviera Resort Hotel	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	FINASISU Registry ID: 110013025127 COMMUNITY WATER SYSTEM	FINDS, ECHO	Villagomez Estate MSV	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110052800304 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	American Memorial Park	Saipan	N	N

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110016615527 COMMUNITY WATER SYSTEM	FINDS, ECHO	Aqua De Vie	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Enforcement Actio n I D : 09-2003-0008 FRS ID: 110014413759 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110014413759	ICIS, FINDS, ECHO	Bank of Guam (Garapan Branch)	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110052796211 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Caesar Sauna	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110013022736 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Canton Apartment	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN - SADOG TASI RD Registry ID: 110024584163	FINDS, ECHO	CUC (Sadog Tasi)	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110050572689 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Country House Restaurant	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110013025038 Registry ID: 110047103237 COMMUNITY WATER SYSTEM	FINDS, ECHO	Dai-ichi Hotel South Barracks	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110052850161 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Duty Free Shoppers	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110052853364 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Evergreen Plaza	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110052853426 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Garapan Elementary School	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110050572028 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Holiday Saipan Resort	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110013025092 COMMUNITY WATER SYSTEM	FINDS, ECHO	JG Sablan Ice and Water	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110050572741 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Jollibee/Garapan	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110013025172 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Kae Poong Corp.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110050571797 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Magic International/Maytenth II	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110052796854 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	McDonalds Garapan	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110052862381 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Micro Beach Hotel	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110050572901 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Mikes Jewelry	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110013025190 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Misa & Yano Water System	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110016615545 COMMUNITY WATER SYSTEM	FINDS, ECHO	Niizeki International Saipan Corp.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110050572046 TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Paradise Hotel	Saipan	N	N

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN VILLAGE Enforcement Actio n I D : 09-2006-0018 FRS ID: 110024530293 Enforcement Actio n T y p e : CWA 309A AO For Compliance Registry ID: 110024530293	ICIS, FINDS, ECHO	Puerto Rico Waste Disposal Facility	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Site ID: 903505 EPA ID: MPD982404758 NPL: Not on the NPL Non NPL Status: Removal Only Site (No Site Assessment Work Needed)	SEMS	Saipan #1 (PCB)	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110013026055 COMMUNITY WATER SYSTEM	FINDS, ECHO	Saipan Gold Beach	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110052853391 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Saipan Ocean View Resort	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110052926205 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Summer Holiday	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110013022656 COMMUNITY WATER SYSTEM	FINDS, ECHO	Tan Holdings/Gold Baron Barracks	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110050522145 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Winchells/Garapan	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110013025699 COMMUNITY WATER SYSTEM	FINDS, ECHO	World Int. Corp. Apartment	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110050571715 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	World Int. Corp./Maytenth Bldg. 1	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GARAPAN Registry ID: 110052796355 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Yamagishi Building	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AS GONNO ROAD KOBLERVILLE, MP 96950 Registry ID: 110070047900	FINDS, ECHO	CNMI Soccer Training Center	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GUALO RAI Registry ID: 110050572830 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Ace Hardware	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GUALO RAI ROAD, GUALO RAI Registry ID: 110070104833	FINDS, ECHO	Gualo Rai Business Park	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GUALO RAI ROAD Registry ID: 110047800929 TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Gualo Rai Court Apartment	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GUALO RAI CENTER GUALO RAI, MP 96950 Site ID: 903571 EPA ID: MPN000903571 NPL: Not on the NPL Non NPL Status: Removal Only Site (No Site Assessment Work Needed) Finish Date: 3/3/2017 Current Action Lea d : EPA Perf Registry ID: 110070058748 SUPERFUND (NON-NPL)	SEMS, FINDS	Gualo Rai Pesticides and Chemicals	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GUALO RAI Registry ID: 110040074326	FINDS	Gualo Rai Shell Service Station	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GUALO RAI Registry ID: 110013022371 COMMUNITY WATER SYSTEM	FINDS, ECHO, garment factory	Hansae Garment	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GUALO RAI Registry ID: 110052853453 TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Highway Market	Saipan	N	N

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GUALO RAI Registry ID: 110013023049 COMMUNITY WATER SYSTEM	FINDS, ECHO	Hyun Jin Barracks	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GUALO RAI Registry ID: 110013022861 COMMUNITY WATER SYSTEM	FINDS, ECHO	Hyun Jin/Lee Gun Apartment	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GUALO RAI Registry ID: 110052796836 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	J&S Corp.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GUALO RAI Registry ID: 110013024770 COMMUNITY WATER SYSTEM	FINDS, ECHO, garment factory	Mirage Garment	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GUALO RAI Registry ID: 110050522001 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Pizza Hut	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GUALO RAI ROAD Enforcement Actio n I D : 09-1999-0044 FRS ID: 110010627795 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110010627795	ICIS, FINDS, ECHO	Triple J Motor Shell Station	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GUALO RAI Enforcement Actio n I D : 09-2003-0036 FRS ID: 110014413722 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110014413722	ICIS, FINDS, ECHO	Verizon Micronesia/Pacifica	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	GUERRERO ROAD Enforcement Actio n I D : 09-1999-0042 FRS ID: 110010677473 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110010677473	ICIS, FINDS, ECHO	Mobil Chalan Station Kiva Station	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	HIBISCUS ST. CPL. DERENCE JACK ROAD Registry ID: 110070066299	FINDS, ECHO	Grand Mariana Casino and Resort Hotel	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	IND US TRIAL DR TRIS 1023964016	TRIS	Mariana Acquisition Corp./Saipan Terminal	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	INT OF TUN TUMAS P SABLAN RD EPA ID: MPR000128918 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Owner/operator na m e : MR GYUN RHEE Waste name: IGNITABLE WASTE iolation Status: No violations found Registry ID: 110064468026	RCRA NonGen, FINDS, ECHO	Sunshine Laundry Services	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ISA DRIVE CAPITOL HILL, MP 96950 EPA ID: MPR000129122 Owner/operator na m e : NMI SETTLEMENT FUND Waste name: IGNITABLE WASTE Violation Status: No violations found Registry ID: 110069283073	RCRA , FINDS, ECHO	NMI Settlement Fund Retirement Fund Building	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ISA DRIVE SAIPAN- SAN VICENTE, MP 96950 Registry ID: 110037244407	FINDS	San Vicente Mobil Service Station	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ISLA DRIVE NAVY HILL Registry ID: 110070104832	FINDS, ECHO	Beacon Hill Condiminiums	Saipan	N	N

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ISLAND APPAREL BLDG PUERTO RICO, MP 96950 Facility ID: TTR000129031 Program: RCRA Facilities EPA ID: MPR000129031 Owner/operator na m e : UMDA WHOLESALE RETAIL INC DBA Waste name: IGNITABLE WASTE, SPENT NONHALOGENATED SOLVENTS Violations reported Registry ID: 110064468106 Registry ID: 110070107932	EPA Watch List, RCRA-CESQG, FINDS	UMDA Wholesale Retail Inc. DBA Island Apparel	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110030482608	FINDS, ECHO	Island of Saipan MS4	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ISLEY FIELD DAN DAN, MP 96950 Site ID: 908795 EPA ID: MPN000908795 NPL: Not on the NPL Non NPL Status: Removal Only Site (No Site Assessment Work Needed)	SEMS	CNMI CUC Isley	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	KADENA DI AMOR ST. & MAPOLA ST. GARAPAN, MP 96950 Registry ID: 110070066297	FINDS, ECHO	New Joeten Hafa Adai Supermarket	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	KAGMAN Registry ID: 110047362741 COMMUNITY WATER SYSTEM	FINDS, ECHO	Dept. of Public Works	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	KAGMAN Registry ID: 110046978758 COMMUNITY WATER SYSTEM	FINDS, ECHO	Kagman Village System	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	KAGMAN Registry ID: 110022499401 COMMUNITY WATER SYSTEM	FINDS, ECHO	Mountain Fresh Water	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	KAGMAN Registry ID: 110013025831 COMMUNITY WATER SYSTEM	FINDS, ECHO	PLS Water	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	KAGMAN Registry ID: 110070144171	FINDS	Ramon Basa Camacho	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	KAGMAN Site ID: 903506 EPA ID: MPD982404923 NPL: Not on the NPL Non NPL Status: Removal Only Site (No Site Assessment Work Needed) Finish Date: 1988-10-01	SEMS-Archive	Saipan #2 Pesticide Site A	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	KAGMAN REMOTE SITE Registry ID: 110032615392	FINDS	USTPO - FY07 PTI Kagman Remote Site	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	KAGMAN Enforcement Actio n I D : 09-2003-0037 FRS ID: 110014413731 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110014413731	ICIS, FINDS, ECHO	Verizon Micronesia/Pacifica - Kagman	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	KANNAT TABLA Registry ID: 110012955506 COMMUNITY WATER SYSTEM	FINDS, ECHO	CMS Quarry	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	KANNAT TABLA Registry ID: 110013022843 COMMUNITY WATER SYSTEM	FINDS, ECHO	Kininat Gardens	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	KANNAT TABLA Registry ID: 110046977919 COMMUNITY WATER SYSTEM	FINDS, ECHO	Saipan Cool Water and Ice Inc.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	KANNAT TABLA Registry ID: 110047353591 COMMUNITY WATER SYSTEM	FINDS, ECHO	Vickys Apartment	Saipan	N	N

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	KOBLERVILLE Registry ID: 110050581679 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Coral Ocean Point	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	LADERAN LUGGUN CLIFF LINE MARPI SAIPAN, MP 96950 EPA ID: MPR000128777 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Owner/operator na m e : CNMI EMERGENCY MNGMT OFFICE Waste name: IGNITABLE WASTE, REACTIVE WASTE Violation Status: No violations found Registry ID: 110064467900	RCRA NonGen, FINDS, ECHO	EMO Saipan UXO Treatment Disposal Site	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	LIM'S BLDG, STE 4, CM GUERRERO RD, SAN JOSE Registry ID: 110041212238	FINDS	JWS Air Conditioning & Refrigeration	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AS LITO Registry ID: 110052796453 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO, garment factory	Rifu Apparel Garment	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AS LITO Registry ID: 110052796284 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Saipan Industrial Co., Inc.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AS LITO Registry ID: 110052796408 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Saipan Koresco Hotel	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AS LITO Registry ID: 110052796435 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Tasi Tours/Managaha	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	LOT NO. TR 22601-3 VILLAGE OF FINA SISU, MP 96950 Site ID: 906047 EPA ID: MPN000906047 NPL: Not on the NPL Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information	SEMS-Archive	Everbright Corp. Fina Sisu Location	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ERNS 2014075945	ERNS	Lower Base	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	900 FEET SW OF THE CORNER OF LOWER BASE DR AND PAGU AVE EPA ID: MPR000128553 Owner/operator na m e : STEVE HINEY Waste type: Batteries, IGNITABLE WASTE, CORROSIVE WASTE, LEAD, MERCURY, BENZENE Registry ID: 110066974117 Registry ID: 110070144256	RCRA-LQG, FINDS, ECHO	CNMI Dept. of Public Works Lower Base Transfer Station	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	LOWER BASE Registry ID: 110024539070 AIR MAJOR	FINDS, ECHO	CUC Saipan Lower Base	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	LOWER BASE Registry ID: 110041212229	FINDS	Five Start Wholesale Foods	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	LOWER BASE ROAD VILLAGE OF TANAPAG EPA ID: MPR000128850 Owner/operator na m e : JOHN SABLAN Waste name: IGNITABLE WASTE, ARSENIC, CADMIUM, CHROMIUM, LEAD Violations reported Registry ID: 110064467982 Registry ID: 110070107448	RCRA-LQG, FINDS, ECHO	JG Sablan Rock Quarry Inc.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	LOWER BASE INDUSTRIAL ROAD Registry ID: 110039013297 SUPERFUND (NON-NPL)	FINDS	Saipan Mayor's Office Drum Site	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	LOWER BASE SAIPAN Registry ID: 110008135026 COMMUNITY WATER SYSTEM AIR MINOR NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Tan Holdings Corp.	Saipan	N	N

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	LOWER BASE Registry ID: 110013025742 COMMUNITY WATER SYSTEM	FINDS, ECHO	The Water Co.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	LOWER BASE P.O. BOX 500440 Registry ID: 110041211881	FINDS	Wushin Corp.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	LOWER BASE Registry ID: 110013022727 COMMUNITY WATER SYSTEM	FINDS, ECHO	Pelly Ent./China Town	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	LOWER BASE Registry ID: 110013024556 COMMUNITY WATER SYSTEM	FINDS, ECHO	Saipan Ice and Water	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MANAGAHA ISLAND Registry ID: 110064619104	FINDS, ECHO	Managaha Island WWTP	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MANGROVE PLACE LOWER BASE, MP 96950 NPL: Not on the NPL Non NPL Status: Removal Only Site (No Site Assessment Work Needed) EPA ID: MPP000200164 Site ID: 903362 EPA ID: MPN000903362 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Registry ID: 110070058747 SUPERFUND (NON-NPL)	SEMS, RCRA NonGen, FINDS, ECHO	Lower Base Medical Waste	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MARPI Registry ID: 110045606527	FINDS	CNMI DPL Marpi Landfill	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MARPI POINT BOX 209 EPAID: CMD983666017 Facility owner nam e : FAR EAST BROADCASTING CO	PADS	KFBS Radio Station	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MARPI Registry ID: 110013026135 COMMUNITY WATER SYSTEM	FINDS, ECHO	Marianas Country Club	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MARPI RD Enforcement Actio n I D : 09-1999-0041 FRS ID: 110010627786 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110010627786	ICIS, FINDS, ECHO	Mobil Tanapag Station	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MIDDLE ROAD - GUALO RAI Registry ID: 110039011164 SUPERFUND (NON-NPL)	FINDS	CNMI Abandoned Pesticides	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MIDDLE ROAD Enforcement Actio n I D : 09-2004-0258 FRS ID: 110017837153 Enforcement Actio n T y p e : RCRA 9006 AO For Comp And/Or Pen (UST) Enforcement Actio n T y p e : RCRA 9006 AO For Comp And/Or Pen (UST)	ICIS, FINDS, ECHO	Cocos Lagoon Development	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MIDDLE RD GARAPAN, MP 96950 Enforcement Actio n I D : 09-2002-0005 FRS ID: 110010590244 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110010590244	ICIS, FINDS, ECHO	Middle Road Mobil Station	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MIDDLE RD Enforcement Actio n I D : 09-2008-5018 FRS ID: 110018903953 Enforcement Actio n T y p e : RCRA 3008A AO For Comp And/Or Penalty Registry ID: 110018903953	ICIS, FINDS, ECHO	Pacific Marine and Industrial Corp.	Saipan	N	Y

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MIDDLE ROAD (GUALO RAI) Enforcement Actio n I D : 09-2003-0033 FRS ID: 110014413704 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110014413704	ICIS, FINDS, ECHO	Shell Highway Express Service Station	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MIDDLE ROAD, GUALO RAI PMB 510 BOX 10001 Registry ID: 110041211970	FINDS	Sherwin-Williams	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MIDDLE ROAD, GUALO RAI Registry ID: 110028226890	FINDS	Shell Triple J Service Station	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MIDDLE ROAD (PO BOX 5540 CHRB) PUERTO RICO, MP 96950 Site ID: 906048 EPA ID: MPN000906048 NPL: Not on the NPL Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information EPA ID: MPR000000067 Violations reported Registry ID: 110064467704 Registry ID: 110052850223 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	SEMS-Archive, RCRA-CESQG, FINDS, ECHO	Tropical Laundry	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MILITARY RETENTION AREA Site ID: 902805 EPA ID: MPD980695977 NPL: Not on the NPL Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information	SEMS-Archive	Dead Cattle on Tinian	Tinian	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	MOBIL KOBERVILLE SERVICE Registry ID: 110032615418	FINDS	USTPO - FY07 MOBIL KOBERVILLE SERVICE STATION	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	NAVY HILL Registry ID: 110013022415 COMMUNITY WATER SYSTEM	FINDS, ECHO, garment factory	Advance Textile	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	NAVY HILL Registry ID: 110013025635 COMMUNITY WATER SYSTEM	FINDS, ECHO	Japan Ent. Barracks	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	NAVY HILL RD RAPUGAO ST NAVY HILL, AS 96950 EPA ID: ASR000048827 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Registry ID: 110032634031	RCRA NonGen, FINDS	Michael C Sablan	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	NAVY HILL Registry ID: 110046978197 COMMUNITY WATER SYSTEM	FINDS, ECHO	Navy Hill System	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	NAVY HILL Registry ID: 110022499367 COMMUNITY WATER SYSTEM	FINDS, ECHO, garment factory	RIFU APPAREL CORPORATION (SAN VICENTE)	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	NAVY HILL Registry ID: 110047362037 COMMUNITY WATER SYSTEM	FINDS, ECHO	Saipan 2	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	0.7 MI NORTH OF COMMERCIAL PORT AVE AND BEACH RD PUERTO RICO, MP 96950 EPA ID: MPR000129080 Waste name: IGNITABLE WASTE Violation Status: No violations found Registry ID: 110064468133 RCRAInfo	RCRA-SQG, FINDS, ECHO	SAIPAN STEVEDORE COMPANY	Saipan	N	Y

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	NORTHERN MARIANA ISLAND & MAJUROUS Site ID: 902810 EPA ID: MPD982040354 NPL: Not on the NPL Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information	SEMS-Archive	Multiple Sites in Saipan	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN ANTONIO, MP 96950 Enforcement Actio n I D : 09-2010-3579 FRS ID: 110013024752 Enforcement Actio n T y p e : EPCRA 325 Action for Penalty - Expedited Settlement Program	ICIS	Pacific Islands Club	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PALE ARNOLD RD. PUERTO RICO Registry ID: 110037236014	FINDS	USTPO-FY-08-ANAKS OCEANVIEW MOBIL (S-0024)	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PANGLAO PL TANGKE, MP 96950 EPA ID: MP6570090005 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Registry ID: 110064468419	RCRA NonGen, FINDS, ECHO	USAF SAIPAN SPACE SURVEILLANCE STATION	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PANGLAO PL TANGKE, MP 96950 EPA ID: MP6570090005 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Registry ID: 110064468419	RCRA NonGen, FINDS, ECHO	USAF SAIPAN SPACE SURVEILLANCE STATION	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PAPAGO Registry ID: 110013025270 COMMUNITY WATER SYSTEM	FINDS, ECHO	Crystal Water	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PAPAGO Registry ID: 110022499385 COMMUNITY WATER SYSTEM	FINDS, ECHO	Marianas Ice and Water	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PENDAN STREET AFETNA, MP 96950 EPA ID: MPP000200159 Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste Registry ID: 110067207597 Registry ID: 110067207604	RCRA NonGen, FINDS, ECHO	USEPA SOULEDOR RESPONSE ACTION - WASTE OIL	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110032624177	FINDS	KPS HEAVY EQUIPMENT RENTAL AND REPAIR	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AS PERDIDO ROAD AS PERDIDO, MP 96950 EPA ID: MPR000128843 Owner/operator na m e : XIONG WAGON Waste name: CORROSIVE WASTE, LEAD Area of violation: Used Oil - Generators Registry ID: 110064467973	RCRA SQG, FINDS, ECHO	Saipan Triple Star Recycling	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PETROLEUM LANE PUERTO RICO VILLAGE, MP 96950 Registry ID: 110064592837 COMPLIANCE AND EMISSIONS REPORTING	FINDS, ECHO	MOBIL OIL MARIANA ISLANDS INC SAIPAN TERMINAL	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	HMIRS 2017009383	HMIRS	PGSN Airport	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PMB 984 GARAPAN Inspection Number : 20060316TER 1 Investigation Reas o n : Neutral Scheme, State	HMIRS	Kin Young Americana, Inc.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110028226827	FINDS	Middle CMG San Jose S/S	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110037230109	FINDS	Shell Airport	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ERNS 2010930177	ERNS		Saipan	N	Y

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Envid: 1017783623 Facility Registry ID : 110010343832 Air Program: Stratospheric Ozone Protection Registry ID: 110010343832 AIR MINOR	US AIRS, FINDS, ECHO	Chong's Corp.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	LOWER BASE EPA ID: MPR000083337 Violations reported Registry ID: 110064467786	RCRA-CESQG, FINDS, ECHO	CUC Plant 1 & 2	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PUBLIC WORKS YARD SAIPAN HARBOR Site ID: 902808 EPA ID: MPD980817845 NPL: Not on the NPL Non NPL Status: Other Cleanup Activity: State-Lead Cleanup Registry ID: 110009350969 SUPERFUND (NON-NPL)	SEMS, FINDS	Stored Transformer-PCB	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PUERTO RICO Registry ID: 110013025289 COMMUNITY WATER SYSTEM	SEMS, FINDS	Anaks Condominium	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PUERTO RICO ROAD PUERTO RICO, MP 96950 Enforcement Actio n I D : 09-2003-0028 FRS ID: 110014413688 Enforcement Actio n T y p e : CWA 311C AO For Removal Registry ID: 110014413688	ICIS, FINDS, ECHO	Clean Earth	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PUERTO RICO Registry ID: 110012955702 COMMUNITY WATER SYSTEM	FINDS, ECHO, garment factory	Express Garment Manufacturing	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	PUERTO RICO DISTRICT Registry ID: 110037236577	FINDS	Puerto Rico Service Station	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	RAI DRIVE, GUALO RAI Envid: 1024032120	ECHO	Zen Homes	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	RAILROAD DRIVE LAULAU BAY, MP 96950 LOT E A 897 EPA ID: MPR000128538 Owner/operator na m e : SAIPAN LAULAU DEVELOP INC Registry ID: 110064467839	RCRA NonGen, FINDS, ECHO	Shimizu Corp. Saipan Office	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	REMOTE STATION GUALO RAI Registry ID: 110032615383 ICIS (Integrated Compliance Information System)	FINDS	USTPO - FY07 PTI REMOTE STATION GUALO RAI	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ROTA HIGH SCHOOL & TINIAN HIGH SCHOOL Site ID: 905968 EPA ID: MPN000905968 NPL: Not on the NPL Non NPL Status: Removal Only Site (No Site Assessment Work Needed)	SEMS	Mariana Islands Laboratory Chemicals	Rota	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ROTA HIGH SCHOOL & TINIAN HIGH SCHOOL Site ID: 905968 EPA ID: MPN000905968 NPL: Not on the NPL Non NPL Status: Removal Only Site (No Site Assessment Work Needed)	SEMS	Mariana Islands Laboratory Chemicals	Tinian	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	VS SABLAN PLAZA, CHALAN PIAO EPA ID: MPR000128975 Owner/operator na m e : MARYANN F. SABLAN Waste type: Batteries, lamps, pesticides, therostats Violation Status: No violations found Registry ID: 110064468071	RCRA NonGen, FINDS, ECHO	C & M HOLDING COMPANY, DBA: CNMI GLOBAL LOGISTICS	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SADOG TASI Registry ID: 110022499376 COMMUNITY WATER SYSTEM	FINDS, ECHO	Swip Corp.	Saipan	N	N

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110052928043 TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	ABA CORPORATION OFFICE BUILDING	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110047361485 COMMUNITY WATER SYSTEM	FINDS, ECHO	American Investment Corp.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110052928025 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO, garment factory	AMERICAN KNITTERS GARMENT FACTORY	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	EPA ID: MPR000083212 Violations reported Registry ID: 110064467777	RCRA-CESQG, FINDS, ECHO	B and R Corp.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110046978151 COMMUNITY WATER SYSTEM	FINDS, ECHO	Capitol Hill System	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110047799361 COMMUNITY WATER SYSTEM	FINDS, ECHO	Culligan Rain Water	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110047362652 COMMUNITY WATER SYSTEM	FINDS, ECHO	Dept. of Public Works	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110052850205 TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Drop Off Laundry	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110052796818 TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO, garment factory	Hyun Jin Garment	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110046978721 COMMUNITY WATER SYSTEM	FINDS, ECHO	Isley/Dan Dan System	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110046978589 COMMUNITY WATER SYSTEM	FINDS, ECHO	Isley Field System	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110047800858 COMMUNITY WATER SYSTEM	FINDS, ECHO	Kinpachi Barracks	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Envid: 1004783147 Air Program: Stratospheric Ozone Protection	US AIRS	N.E.T. Corp.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110046978277 COMMUNITY WATER SYSTEM	FINDS, ECHO	Navy Hill South System	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110047361403 COMMUNITY WATER SYSTEM	FINDS, ECHO	North Pacific Builders Kanat Tabla	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110047361029 COMMUNITY WATER SYSTEM	FINDS, ECHO	NORTH PACIFIC BUILDERS SAN VICENTE	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110050572812 COMMUNITY WATER SYSTEM	FINDS, ECHO	Pacific Castle	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110046978507 COMMUNITY WATER SYSTEM	FINDS, ECHO	San Viente System	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Envid: 1004783143 Air Program: Stratospheric Ozone Protection	US AIRS	Tan Holdings Corp.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110046978455 COMMUNITY WATER SYSTEM	FINDS, ECHO	Tanpang North System	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110050572983 COMMUNITY WATER SYSTEM	FINDS, ECHO	Tanpang South System	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	Registry ID: 110070144170	FINDS	Triple B Forwarders	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN JOSE VILLAGE Registry ID: 110046977385 COMMUNITY WATER SYSTEM	FINDS, ECHO	3K Ice and Water Co.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN ANTONIO Registry ID: 110046977704 COMMUNITY WATER SYSTEM	FINDS, ECHO	Aqua Saipan Water Co.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN ROQUE ROAD Enforcement Actio n I D : 09-1999-0045 FRS ID: 110010677204 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110010677204 COMMUNITY WATER SYSTEM	ICIS, FINDS, ECHO	Hotel Nikko Saipan	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN VICENTE Registry ID: 110046965940 COMMUNITY WATER SYSTEM	FINDS, ECHO, garment factory	Jin Apparel Garment	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN JOSE Registry ID: 110050572723 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Joeten Superstore	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN JOSE Registry ID: 110050572956 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Kims General	Saipan	N	N

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN ROQUE SHOPPING PLAZA Enforcement Actio n I D : 09-2003-0069 FRS ID: 110015762129 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110015762129	ICIS, FINDS, ECHO	La Fiesta	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN ANTONIO Registry ID: 110013025412 COMMUNITY WATER SYSTEM	FINDS, ECHO, garment factory	Mariana Fashion	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN JOSE Registry ID: 110013025537 COMMUNITY WATER SYSTEM	FINDS, ECHO	Modern Stationary	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN ANTONIO AREA Site ID: 906050 EPA ID: MPN000906050 NPL: Not on the NPL Non NPL Status: SI Start Needed Registry ID: 110015778274 SUPERFUND (NON-NPL)	SEMS, FINDS	N.E.T. CORPORATION DBA PACIFIC COAST	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN ANTONIO Registry ID: 110012955249 COMMUNITY WATER SYSTEM	FINDS, ECHO, garment factory	Neo Fashion Inc.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN JOSE Registry ID: 110013023012 COMMUNITY WATER SYSTEM	FINDS, ECHO	Paradise Appartment	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN ANTONIO Registry ID: 110046979169 COMMUNITY WATER SYSTEM	FINDS, ECHO	Sabland Construction Barracks	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN JOSE Registry ID: 110052926054 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	SABLAN ENTERPRISE/SAN JOSE	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN ROQUE RD Enforcement Actio n I D : 09-1999-0043 FRS ID: 110010677482 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110010677482	ICIS, FINDS, ECHO	San Roque Shell	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN VICENTE Registry ID: 110046964424 COMMUNITY WATER SYSTEM	FINDS, ECHO	Stanford Resort Hotel	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN ANTONIO Registry ID: 110046966011 COMMUNITY WATER SYSTEM	FINDS, ECHO, garment factory	SUNTEXT/ NET CORPORATION GARMENT	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN VICENTE Registry ID: 110052800386 TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	SVES Aquaculture Well	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN VICENTE Registry ID: 110013022692 COMMUNITY WATER SYSTEM	FINDS, ECHO	TAN HOLDINGS/ HILLTOP CONDOMINIUM	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN VICENTE Registry ID: 110046893466 COMMUNITY WATER SYSTEM	FINDS, ECHO	Tudela Water	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN ANTONIO AREA Site ID: 906049 EPA ID: MPN000906049 NPL: Not on the NPL Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information Registry ID: 110013024707 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	SEMS-Archive, FINDS, ECHO	United International Corp.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN ANTONIO Registry ID: 110013024805 COMMUNITY WATER SYSTEM	FINDS, ECHO	Una Moda Corp.	Saipan	N	N

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52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN ANTONIO Registry ID: 110013024672 COMMUNITY WATER SYSTEM	FINDS, ECHO	Winners Corp.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN ANTONIO Registry ID: 110050522109 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	YK CORP./SUNSHINE LAUNDRY/SAKO CORP.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SAN VICENTE Registry ID: 110013025519 COMMUNITY WATER SYSTEM	FINDS, ECHO	Younis Housing Complex	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SANTA REMEDIOS ROAD TANAPAG, MP 96950 EPA ID: MPR000107573 Classification: Non-Generator Owner/operator na m e : ENV CHEMICAL CORP Registry ID: 110064467811	RCRA NonGen, FINDS, ECHO	ECCITC Plant	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SANTA REMEDIOS ROAD LOWER BASE SAIPAN, MP 96950 EPA ID: MPR000083204 Registry ID: 110064467768	RCRA NonGen, FINDS, ECHO	Tan Holdings Corp.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SATMONETE LN AFETNAS, MP 96950 EPA ID: MPR000086892 Registry ID: 110064467795	RCRA NonGen, FINDS, ECHO	Sablan Construction Ltd.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	0.6 MI SE OF PUMPKIN ST AND BEACH RD INTERSECTION SAN JOSE, MP 96950 EPA ID: MPR000129098 Owner/operator na m e : TRIPLE J MOTORS SAIPAN Registry ID: 110064468142	RCRA-SQG, FINDS, ECHO	Triple J Motors Saipan	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SONGSONG VILLAGE Registry ID: 110037266810	FINDS	IBB Marianas	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SUSUPE Registry ID: 110052767635 TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	ADA Gymnasium	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SUSUPE Registry ID: 110012955613 COMMUNITY WATER SYSTEM	FINDS, ECHO	Grace International	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SUSUPE Facility ID: TTR000000075 Program: RCRA Facilities	EPA Watch List	Marianas Cleaners	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SUSUPE Registry ID: 110052926152 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Marianas High School	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SUSUPE Registry ID: 110012955409 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Saipan Diamond Hotel	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SUSUPE Registry ID: 110052850330 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Sun Palace Hotel	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SUSUPE Enforcement Actio n I D : 09-2003-0038 FRS ID: 110014413740 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110014413740	ICIS, FINDS, ECHO	VERIZON MICRONESIA / PACIFICA SUSUPE	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SUSUPE Enforcement Actio n I D : 09-2003-0038 FRS ID: 110014413740 Enforcement Actio n T y p e : RCRA 9006 Field Citation (UST) Registry ID: 110014413740	ICIS, FINDS, ECHO	VERIZON MICRONESIA / PACIFICA SUSUPE	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	SUSUPE Registry ID: 110050522369 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Winchells Susupe	Saipan	N	Y

Doc #	Doc Name	Reference Source	Summary of Document	Type	Google Earth Link	Island	More Info Needed? (Y/N)	Site of Interest (Y/N)
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	700 FT SW MATUIS RD @CLIFF Site ID: 902809 EPA ID: MPD981400872 NPL: Not on the NPL Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information	SEMS-Archive	Marpi Pesticide Dump Site	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	TALAFOFU Registry ID: 110013026260 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Kingfisher Golf Resort	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	TANAPAG VILLAGE Site ID: 903618 EPA ID: MPD982524506 NPL: Not on the NPL Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information	SEMS-Archive	Saipan Capacitors	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	TANAPAG Registry ID: 110052926107 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	Tanapag Elementary School	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	TANAPAG VILLAGE ON CHALAN PALE ARNOLD Registry ID: 110059063953 COMMUNITY WATER SYSTEM	FINDS, ECHO	Sam Marianas, Inc.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	TANAPAG Registry ID: 110013024869 COMMUNITY WATER SYSTEM	FINDS, ECHO	Top Fashion	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	TANDUKI DR DANDAN, MP 96950 EPA ID: MPR000000158 Owner/operator na m e : CARMAN L G BORJA Registry ID: 110064467722	RCRA NonGen, FINDS, ECHO	BLACK MICRO CORP SAIPAN CAMP	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	AS TERLAJE MAIN CAMPUS Registration Numb e r : 082428-MP-001 Registry ID: 110038251762	SSTS, FINDS	NORTHERN MARIANAS COLLEGE - CREES	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	TEXAS RD SUSUPE, MP 96950 EPA ID: MPN000128637 Classification: Non-Generator Owner/operator na m e : MAYCE CHENG SIGNIFICANT NON-COMPLIER Registry ID: 110061058714 COMMUNITY WATER SYSTEM	RCRA NonGen, FINDS, ECHO	Onwell Manufacturing Saipan, Ltd.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	THE CITIES OF SAIPAN, TINIAN, ROTA Registry ID: 110039013304 SUPERFUND (NON-NPL)	FINDS	CNMI AG CHEMICAL DISPOSAL PROJECT	Saipan, Tinian, Rota	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	TRUST TERRITORIES WAREHOUSE Site ID: 902807 EPA ID: MPD980817787 NPL: Not on the NPL Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information	SEMS-Archive	CALCIUM HYPOCHLORITE STORAGE SITE	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	W TRUST TERR (15-SAIPAN) PACIFIC TRUST TERR, MP 96950 Site ID: 903082 EPA ID: MPD981622285 NPL: Not on the NPL Non NPL Status: Removal Only Site (No Site Assessment Work Needed)	SEMS-Archive	PCB WASTES (15 SAIPAN)	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	TSA PASSENGER SCREENING CHECKPOINT AT SAIPAN INTL EPA ID: MPR000128835 Owner/operator na m e : TSA Waste name: IGNITABLE WASTE, CORROSIVE WASTE, REACTIVE WASTE, 2-PROPANONE (I) (OR) ACETONE (I) Registry ID: 110064467964	RCRA-CESQG, FINDS, ECHO	TRANSPORTATION SECURITY ADMIN AT SAIPAN	Saipan	N	Y

Doc #	Doc Name	Reference Source	Summary of Document	Type	Google Earth Link	Island	More Info Needed? (Y/N)	Site of Interest (Y/N)
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	TUN JOAQUIN DOI RD FINA SISU VILLAGE, MP 96950 EPA ID: MPR000128819 Classification: Non-Generator Owner/operator na m e : WILLIAM FONG Enforcement Actio n I D : 09-2007-0024 FRS ID: 110028063547 Enforcement Actio n T y p e : RCRA 3008A AO For Comp And/Or Penalty Registry ID: 110064467946 Registry ID: 110028063547	RCRA NonGen, ICIS, FINDS, ECHO	Everbright Co. Ltd.	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	TUN KYOSHI KILELEMAN RD AS PERDIDO VILLAGE, MP 96950 EPA ID: MPR000128959 Owner/operator na m e : GPPC INC Violations Reported Registry ID: 110064468053	RCRA NonGen, FINDS, ECHO	GPPC INC AS PERDIDO VILLAGE HEADQUARTERS	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	TUN HERMAN PAN ROAD, RT. 35 AIRPORT ROAD, DANDAN Registry ID: 110057372908 NON-TRANSIENT NON-COMMUNITY WATER SYSTEM	FINDS, ECHO	HERMAN'S MODERN BAKERY, INC.	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	UFA ST LOWER BASE, MP 96950 EPA ID: MPR000128579 Owner/operator na m e : BEA S QUITUGUA Registry ID: 110061058741	RCRA NonGen, FINDS, ECHO	PACIFIC DEVELOPMENT INC SAIPAN	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	UNKOWN SAN ROQUE MARP ROAD Registry ID: 110037236595	FINDS	LA FIESTA (CNMI-080623A)	Saipan	N	N
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	VICINITY OF BEACH ROAD TANAPAG, MP 96950 Enforcement Actio n I D : 09-2000-0383 FRS ID: 110010752499 Enforcement Actio n T y p e : RCRA 7003 AO For Imminent Hazard Registry ID: 110010752499	ICIS, FINDS, ECHO	Tanapag Village	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ERNS 2008878408	ERNS		Saipan	Y	
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ERNS 2002606624	ERNS		Saipan	Y	
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ERNS 2010949853	ERNS	Puerto Rico Saipan Terminal	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ERNS 2015136203	ERNS	Smiling Cove Mariana	Saipan	N	Y
52	CNMI LUP Support EDR ZIP/PLUS Re	EDR	ERNS 99504407	ERNS	AN APAG HARBOR	Saipan	N	Y

ATTACHMENT B

HISTORICAL AERIAL PHOTO AND TOPOGRAPHIC MAP REVIEW SUMMARY

APPENDIX B

HISTORICAL AERIAL PHOTOGRAPHS AND TOPOGRAPHIC MAP REVIEW

MNA reviewed historical aerial photographs and topographic maps to interpret past land uses throughout the CNMI. The reviews are summarized below.

TOPOGRAPHIC MAP REVIEW

Tinian

1999: San Jose is the main developed are located on the southwest portion of the island. West Tinian Airport is depicted to the north of San Jose, with the former West Field located adjacent to the north of the airport. Sisonyan Makpo is a swamp/marsh located to the northeast of San Jose, on the eastern portion of the island. A quarry is depicted on the eastern portion of the island, along the western flank of the Pina peak. Carolinas and Kastiyu are peaks located on the southern portion of the island. Broadway and 8th Avenue are secondary highway located inland that parallel to each other and run in a north to south direction. The northern portion of the island is depicted as a military reservation, including North Field. Hagoi is a pond and swamp/marshland area located to the west of North Field. The island of Aguijan is depicted on the map with a road that runs from the southwest and inland toward the northeast. One water tank is depicted on the southwest portion of the Aguijan island.

Saipan

1983: The topographic map covers the southwest portion of the island. Saipan International Airport is depicted. I Fadang is located to the south of the airport. Kobler Airfield is depicted adjacent to the northwest of Saipan International Airport. San Antonio, Garapha, Chalan Kanoa, Susupi, and San Jose are developed areas that run from the south to the north along the western coastline. Hagoi Susupi is a perennial lake located to the east of Susupi and Chalan Kanoa. The marsh/swampland and numerous ponds are depicted to the east of Susupi and Chalan Kanoa. A radio tower and U.S. Coast Guard Reservation is depicted to the south of San Antonio. A hospital is depicted to the east of Susupi and "ruins" are located to the southeast of San Jose. Roadways are depicted inland, but few building or structures are shown.

1999: The main developed areas include Kagman on the east; Dan Dan on the southeast; Koblerville, San Antonio, and Chalan Kanoa on the southwest, Garapan on the west, and Tanapag on the northwest portion of the island. Smaller developed areas include San Vicente at the southeast, San Jose at the southwest, Capitol Hill in the center, and San Roque and Matansa at the northwest portion of the island. Numerous secondary highways and other roadways traverse the interior and coastline of the island. Saipan International Airport is

depicted on the southern portion of the island. A quarry is depicted to the east of San Vicente. A communication facility and towers are depicted in Kagman III. A military reservation is depicted on the western portion of the island between Garapan and Tanapag. An abandoned mine is shown to the east of Tanapag.

Rota

1999: Songsong located on the southwest portion and Sinapalo located in the center of the island are the main developed areas. A mine is depicted on the southwestern flank of Mount Sabana, which is located on the southern portion of the island and within the Sabana Conservation area. Rota International Airport is located to the north of Sinapalo. A secondary highway run from Songsong, along the northern coastline to the northeast, and ends in Sinapalo. Latte Stones and springs are scattered throughout the island. Afatung Wildlife Management Area is depicted on the southeast coast and Chenchon Bird Sanctuary is depicted on the eastern coast of the island. A golf course is on the northwestern coast.

AERIAL PHOTOGRAPHS REVIEW

Tinian Aerial Photograph Details

Year	Tinian Photo ID	Scale	Photograph Details
1946	None provided	None provided	This composite photograph is of the northern portion of the island. West Field is highly visible and contains four runways. A road runs around the airfield. A supporting area is located the northeast of the airfield. A developed are is located to the south of North Field and may be residential. Two smaller developed areas are located to the southwest and southeast of North Field. Three roads run from the airfield to the south.
1946	None provided	None provided	This composite photograph is of the center portion of the island. West Field is located on the western side of the island and contains three runways. A smaller runway is visible to the west of the airfield. Supporting areas are located to the north and south of the airfield. A large developed area that appears to be residential is located to the northeast of the airfield. Smaller developed areas are visible to the north, northwest, northeast, east, and south. A road runs along the coastline and many other roads are located on the interior of the island. Cleared areas are visible to the north and east of the airfield and appear agricultural.
1946	None provided	None provided	This composite photograph is of the southern portion of the island. A breakwall and port are visible on the southwest portion of the island. Surrounding areas appear to be predominantly industrial. A developed area is visible on the southernmost portion of the island and appears industrial. A small, possibly residential area, is located to the southeast of the pier. Cleared areas are on the southeastern portion of the island and appear agricultural. Several roads are visible throughout the island.
1968	ARC521900V10004	1”=3,333’	The photograph includes the center portion of the island. West Field is visible. Broadway Street runs from north to south on the eastern side of the island. 72nd Street runs from West Field to the west. Areas to the

Year	Tinian Photo ID	Scale	Photograph Details
			west of Broadway Street are developed with roads and appears to be agricultural land. A portion of North Field is visible.
1969	ARC211100V10022	1"=2,116'	The photograph is of the area to the west and northwest of West Field. West Field is visible. Some roads are visible in the area but are not clearly delineated; therefore, it cannot be discerned if the roads are being utilized. No other developments are visible in the photograph.
1970	ARC111580V10024	1"=3,333'	The photograph is of the West Field area and areas to the south, and includes the southwest portion of the island. West field is visible. San Jose appear to be a town located on the southwest portion of the island. A dock or pier is visible to the southwest of San Jose. Broadway Street runs north to south to the east of West Field.
1970	ARC111650V10069	1"=500'	The photograph is of a small area to the north of West Field on Tinian. The area appears to be formerly used runways which are being overgrown with vegetation. No other development is observed on the photograph.
1971	ARC111890010005	1"=2,116'	The photograph is of Tinian, west of West Field. A road traverses from the south and follows the coastline to the north. 8th Avenue runs north to south, adjacent to the west of West Field. 86th Street runs east to west and is adjacent to the north of West Field. A portion of West Field is visible on the eastern portion of the photograph.

All photographs were in black and white photography.

Saipan Aerial Photograph Details

Year	Saipan Photo ID	Scale	Photograph Details
East and Central Saipan; Kagman, Capitol Hill, to San Roque			
1968	C521700010017	1"=3,433'	Kagman Airfield and supporting roads are visible on the eastern peninsula. Isa Drive (Route 31) is visible and runs from the east, through the center of the island (new Capitol Hill) and to the west, towards Puerto Rico. Development is visible in the Capitol Hill area. Some development is visible in San Roque. Middle Road is running diagonally southeast to northwest, and through San Roque. Mamate Loop is visible in San Roque.
1969	C529000V10077	1"=2,166'	Isa Drive (Route 341) is visible and runs from Kagman, northwest through Capitol Hill, and to the Puerto Rico vicinity. Development and Capitol Hill Road is visible at Capitol Hill. Route 36 runs from Capitol Hill to the east, then turns north.
1970	C471110010005	1"=3,333'	No changes from the 1968 and 1969 photographs are visible.
East and South Saipan; Kagman, Laulau Bay, to San Vicente			
1968	C521700010018	1"=3,433'	The Kagman Airfield and supporting roads are visible. Isa Drive (Route 31) is visible and runs southwest from the Kagman area to the San Vicente area. Development is visible in the San Vicente area. Laulau Bay is in the photograph.
1969	C533600010004	1"=2,166'	Additional development is visible in the San Vicente/Laulau Bay area. Roads at Kagman Airfield are more clearly defined.
1969	C529000V10078	1"=2,166'	No changes from the 1968 and 1968 C533600010004 photo are visible.
1970	C471110010004	1"=3,333'	Area to the north of Kagman Airfield appears more developed. No changes from the 1968 and 1969 photos are visible.
East and South Saipan; Kagman, Laulau Bay, San Vicente, to Dandan			
1968	C521700010019	1"=3,433'	The airstrip and supporting roads are visible at Kagman. Development is visible in the San Vicente area. Isley Field is visible on the southernmost

Year	Saipan Photo ID	Scale	Photograph Details
			portion of the island. As Perdido Road runs from Isley Field to the northwest. Roads are visible in the Naftan area.
Southwest Saipan; Afetna, Chalan Kanoa, Laolao, to Garapan,			
1968	C521700010009	1”=3,433’	Route 30 parallels the western coastline and runs from Afetna to the south, through Chalan Kanoa and Laolao, and north to Garapan. Middle Road runs parallel and inland to Route 30. Route 31 begins at Laolao and runs to the southeast then heads north. As Perdido Road begins to the north of Afetna and runs to the southeast to Isley Field. Isley Field is visible to the east of Afetna, and Lake Susupe is locate to the northeast of Chalan Kanoa. Development is centralized predominantly in Afetna, Chalan Kanoa, Laolao, and Garapan. A pier or dock is visible in Garapan.
1969	C529000V10087	1”=2,166’	Chalan Kanoa and Laolao are the main developed areas. Lake Susupe is visible to the northeast of Chalan Kanoa. A cleared non-vegetated area is located to the west of Laolao. Gualo Rai Road is located to the north of Laolao and runs perpendicular to Route 30.
1970	C111680V10018	1”=3,333’	Chalan Kanoa and Laolao are more developed. A track and field is visible to the south of Laolao. No changes from the 1968 and 1969 photographs are visible.
1971	C111100020011	1”=3,333’	Additional development is visible in Garapan. No changes from the 1970 photograph are visible.
West and Central Saipan; Laolao, Garapan, Puerto Rico, to Tanapag			
1968	C521700010010	1”=3,433’	Route 30 parallels the western coastline and runs from Laolao and terminates at Garapan to the north. Middle Road parallels Route 30 and inland, runs through Garapan, and north to Puerto Rico. Route 38 is located in Puerto Rico and transects Middle Road. Isa Drive (Route 341) begins in Puerto Rico, travels to the southeast through Capitol Hill, the south towards Laulau Bay. A pier or dock and the landfill is visible in Puerto Rico. Other portions of the coastline at Puerto Rico appear to be developed.
1969	C529000V10088	1”=2,166’	Garapan is developed and appears to be residential and industrial in usage. Route 30 and Middle Road are visible. Capitol Hill is visible to the east of Garapan. No changes from the 1968 photograph are visible.
West, Central, and Northwest Saipan; Garapan, Puerto Rico, Tanapag, to San Roque			
1970	C111680V10020	1”=3,333’	Garapan is developed and appears mixed residential and industrial. Puerto Rico is visible and appears predominantly industrial. Tanapag and San Roque are visible to the north. Middle Road runs parallel to the coastline and traverses from Garapan, through Puerto Rico and Tanapag, and northeast to San Roque. Isa Drive begins near Puerto Rico and runs to the southeast, through Capitol Hill. Capitol Hill appears to be residential. Route 36 begins around Capitol Hill and runs to the east then heads north.
1971	C111100020009	1”=3,333’	More development is visible in Garapan. No changes from the 1970 photograph are visible.
Central Saipan; Capitol Hill			
1979	HCZM000010062	1”=1,366’	Isa Drive is visible and runs from north to south through Capitol Hill. Capitol Hill appears to be residential and industrial or commercial. Route 36 starts at Capitol Hill and runs to the east.
1979	HCZM000010043	1”=1,366’	The southwestern portion of Capitol Hill is visible. Tapoochau Road runs from Capitol Hill to the north. There is very little development along Tapoochau Road. The eastern (inland) portion of Garapan is visible.

Year	Saipan Photo ID	Scale	Photograph Details
			Middle Road is visible running form southwest to northeast with Route 38 and Sugar King Road transecting. Visible portions of Garapan appear residential. The area between Garapan and Capitol Hill is undeveloped and appears forested.

All photographs were in black and white photography.

Rota Aerial Photograph Details

Year	Rota Photo ID	Scale	Photograph Details
Southwest Rota			
1968	C522000V10004	1"=3,333'	Songsong is visible on the southwestern most portion of the island and appears to be residential. A road is visible and runs along the coastline from Songsong to the southeast and also to the northeast. Very little development is visible outside of Songsong.
1968	C522000V10013	1"=3,333'	A road parallels the coastline and runs from Songsong to the southeast. A second, less defined road, is visible inland. One clearly defined area is cleared and may be agricultural. No buildings outside of Songsong are visible in the photograph.
1970	C111600V10013	1"=2,083'	The upper and lower roads are more clearly defined. No buildings are visible. There are no visible changes from the 1968 photographs.
Northeast Rota			
1968	C522000V10005	1"= 3333'	An airstrip is visible. A road runs from the airstrip to the west, then parallels the coastline. Two buildings are visible adjacent to the road. Areas are cleared but their usage is not apparent.
1968	C522000V10011	1"=3,333'	Areas to the east of the airstrip are cleared in what may be agricultural in usage. No buildings are visible in the cleared areas.
1970	C111600V10004	1"=2,083'	Supporting roads around the airstrip are visible. No other changes from the 1968 photograph are visible.
1970	C111600V10015	1"=2,083'	A road runs from the airstrip to the south, then heads to the west. Some cleared areas are visible and may be agricultural in usage. No buildings are visible.

All photographs were in black and white photography.

ATTACHMENT C

INTERVIEW SUMMARY

ATTACHMENT C

INTERVIEW SUMMARY

MNA conducted interviews with agency representatives and individuals in order to gain greater access and understanding of environmental related hazards and historical and natural resources. The interviews are summarized below.

No.	Interviewee	Agency/Affiliation	Interviewer	Date
1	Don Farrell	Tinian Historian	Myounghee Noh	12/9/2017
2	Paul Manglona	CNMI Senator	Myounghee Noh	12/9/2017
3	Joey P. San Nicolas	Tinian Mayor	Myounghee Noh	4/26/2018
4	Tony Benavente	Saipan DLNR	Myounghee Noh	5/30/2018
5	John Scott	AMPRO	Myounghee Noh	5/24/2018
6	John Ford	Cardno	Myounghee Noh	6/4/2018
7	Derek Yasaka	WCP	Myounghee Noh	5/31/2018
8	Robert Jordan	Koa Consulting, LLC	Jessica Walsh	5/31/2018
9	Mary Alice Smith	Paralegal Specialist, USACE	Jennah Oshiro	6/20/18

1. Don Farrell, Tinian

In the 1940s, there were about 300 Japanese villages. They came for sugar cane plantations, brought in goats, cleared the plateau, and established a cable system. Okinawans were a big part of the population on Tinian and Aguagan (Goat Island), southwest of Tinian.

There are five military plans. For the land use planning, the most important thing to consider is the impact from the military retention. For example, Pagan artillery range idea came up, but the southeast Pagan is perfect place for fishing village. The military will have to build airfield, medical, boat landing, etc.

Tinian. CNMI negotiated North Field in exchange of the U.S. Citizenship. During the G.W. Bush administration, CNMI renegotiated for alliance. In 1975, a 50 year land lease (renewable) agreement was signed.

There were about 16 coral pits around the island (by 6 Naval Construction Brigade). Asphalt plants were set up near coral pits. The coral pits turned into bomb dumps after the war. Tinian was used as staging area; everything was brought in by containers. After the WWII, the military was immediately downsized (2,200 to 800 persons), and everyone wanted to go home quickly, and no one was cleaning up. It is anticipated that no less than 60,000 bombs were present.

There are fuel pipelines. For the B29 aircrafts, about 2 million gallon per day was required (9,000 gal x 200 B29 aircraft) in the North Field, and there were another 200 in the West Field. What happened to the B29 engines? Likely in pits and ocean bottom. Pipelines were operating 24/7. In the West Field, 55-gal drums were welded and made into pipe. There were several fuel farms. Initially fuel came in 55-gal drums; later, fuel was transferred from off-shore barges.

Dump Coke is named after disposal of Coca-Cola bottles, trucks, phosphorus (tracers in all types of ammunitions).

2. Paul Manglona, Rota

Rota's economic development has been challenging due to limited airlines, airfield, ferry, etc. Considering all those limitations, the public voted for casino development. In the early 1990s, many Japanese tourists visited Rota.

Rota has good water; a water cave was piped by the Japanese years ago; however, EPA has concern for water quality (we have septic tanks). EPA prefers well water. Bottling water was also considered; however, shipping cost is a limiting issue.

We have agricultural homesteads. Sweet potato, taro, banana, etc. Some agricultural lands were stopped from farming due to potential groundwater contamination by pesticides used by the farmers.

We have one landfill, unlined and operated for about 30 years, reaching capacity. The USEPA inspects once a year (if that). Some public land is available for (new) landfill. The soil can be used for topsoil, and the new quarry can be used for trash.

A property adjacent to our family farm (Honey Garden) was formerly used by the Japanese for some factory type of facility. They mined phosphate and cabled it down from the top to the factory, then loaded onto boats. Some of the structures remained on land and in water.

3. Joey P. San Nicolas, Tinian

According to the December 2016 ROD, U.S. Air Force is to build an airfield to use at times of emergency (Divert). The ROD also includes 20-24 training exercise per year. New construction is underway on land, by the CNMI Port Authority, and this is a public information.

There is also CNMI Joint Military Training (CJMT) by the Marines which involves high impact zone, tanks, grenades, etc., and MITT build-up.

Tinian needs improvements in harbors, roads, and breakwater. I am not against the DoD, but types of DoD activities must be considered. Previously, USACE conducted a cost benefit analysis for port development (It did not advance).

For Marpo Hts 2 Homestead, we would like to see "hybrid" of local material and design.

There are anti-military activist groups, Deborah Fleming and Fluorine Schneider.

4. Tony Benavente, Saipan

We have made improvements; for example converting the former Puerto Rico Dump Site into a park. Marpi has natural habitat that needs to be protected. Lots of private properties are changed to public land, by land exchange or monetary compensation.

Water quality. The Susupe Lake is mixed fresh and salt water. It is a known war-waste site and the lagoon is monitored by BECQ. Our groundwater is not drinkable. CUC treats the water before reaching public consumption, but water quality is not trusted.

Garment factories. There was one in Lower Base. Sewer, waste treatment, etc., associated with some garment factories are about one mile removed from the factory. San Antonio area may have septic tanks.

5. John Scott, AMPRO

I pulled 480 fragmentation bombs from the current ferry landing on Tinian in 2000. USACE comes out and stands at the end of the pier every couple of years but, to my knowledge no one has actually done a survey.

I've seen several sections looking for UXO, plenty of likely spots. I would also expect lots of hazmat went over the side in the course of off-loading with nets and is very likely still there. Good candidate would be the thousands of barrels of asphalt/tar used to pave the runways and roads. Couple of spill spots near the airport where the processing plant was.

As for phosphate mines, I only know of the one in Rota off the top of the mountain with a cable tram to the east side harbor area for offloading. Pretty sure there's nothing in Tinian/Saipan. Several rock quarries on Tinian used for rock for the airfield construction but later used as open dumping areas for everything from construction debris/aircraft parts and general trash. Could be some HazMat in there and could use a survey to determine. Biggest one is behind the old Japanese Communication Station which was also used later as a slaughterhouse. Could be some hazmat there as well.

Don't forget the fuel bunker on Tinian that burned out during the battle but is still full to the brim with partially burned barrels and who knows what else. Definitely a major hazmat site. It's near the atomic bomb loading pits so in the north DoD controlled area.

Also should check the history for Pagan and Anatahan. Occupied by the Japanese during their 30 years in the CNMI. Might be a mine or dump on these as well. Anatahan is in the buildup zone for the USMC live fire range.

6. John Ford, CARDNO

The April 2015 public draft of the Commonwealth of the Northern Mariana Islands (CNMI) Joint Military Training (CNMT) EIS/OEIS is a good source of information on most of the topics you mentioned in your email, and can be found here: http://www.cnmijointmilitarytrainingeis.com

/documents. Cardno prepared an Integrated Cultural Resource Management Plan for the Navy in 2015 which may be available form Shawn Arnold at JRM or Lon Bulgrin at NAVFAC Marianas. The BECQ office maintains a list of sensitive wetlands, and both BECQ and DFW have additional information on the terrestrial and marine resources within the CNMI.

Cardno does have more recent information on cultural and natural resources within CNMI; however, that information is still pre-decisional and would have to be released by DoD.

7. Derek Yasaka, WCP

Munitions and explosives of concern present a hazard throughout Saipan which DPL is keenly aware of as a result of DERP-FUDS investigations at the northern and southern ends of the island. These investigations have also identified the presence of threatened/endangered flora and fauna. The only potential DERP-FUDS HTRW site that I am aware of at the moment is a former fuel farm located in Chalan Piao and Fina Sisu. Another former fuel farm at Sadog Tasi and Tanapag is presently being addressed by POH.

8. Robert Jordan, Koa Environmental

Volcano hazards would be a major concern regarding decisions associated with designating homestead lots. Suggest reviewing National Renewable Energy Lab reports and the mapping done by Robby Greene, who is now with NOAA.

Quarry availability on both Tinian and Rota is an issue. Rota doesn't have aggregate quarry, which is a major issue impacting development costs.

DPL has a good mapping section and should be able to provide locations for all sites identified.

Old garment factories on Saipan are on public land, and many are dilapidated and not being used. DPL should know the location of all of them. San Roki garment factory is being leased as a barracks for construction workers.

9. Mary Alice Smith, Paralegal Specialist, USACE

The May 30, 2018 Freedom of Information Act (FOIA) request was not considered a property request because it did not reasonably describe the records sought. The attachment to the FOIA request may have been lost. Please resubmit the list of sites for information sought.

The list of sites was resubmitted to Ms. Smith.

ATTACHMENT D

VOLCANO HAZARD RESEARCH SUMMARY

Attachment D. Volcano Hazard Research Summary

Table of Contents

Part I. Volcano Hazards

Source: USGS https://volcanoes.usgs.gov/vhp/hazards.html

Pyroclastic Flow Hazards

Pyroclastic flows contain a high-density mix of hot lava blocks, pumice, ash and volcanic gas. They move at very high speed down volcanic slopes, typically following valleys. Most pyroclastic flows consist of two parts: a lower (basal) flow of coarse fragments that moves along the ground, and a turbulent cloud of ash that rises above the basal flow. Ash may fall from this cloud over a wide area downwind from the pyroclastic flow.

Pyroclastic flows form in different ways:

1. Collapse of eruption column: during a highly explosive eruption, the column ejected upwards into the atmosphere cools and can become too cool and dense to maintain upward momentum.
2. "Boiling over" from eruptive vent: during an explosive eruption, material is erupted without forming a high plume and rapidly moves down slope.
3. Collapse of lava domes or flows: The fronts of lava flows or domes can become so steep that they collapse due to gravitational force.

With rock fragments ranging in size from ash to boulders that travel across the ground at speeds typically greater than 80 km per hour (50 mph), pyroclastic flows knock down, shatter, bury or carry away nearly all objects and structures in their path. The extreme temperatures of rocks and gas inside pyroclastic flows, generally between 200°C and 700°C (390-1300°F), can ignite fires and melt snow and ice.

Pyroclastic flows vary considerably in size and speed, but even relatively small flows that move less than 5 km (3 mi) from a volcano can destroy buildings, forests, and farmland. On the margins of pyroclastic flows, death and serious injury to people and animals may result from burns and inhalation of hot ash and gases.

Pyroclastic flows generally follow valleys or other low-lying areas and, depending on the volume of rock debris carried by the flow, they can deposit layers of loose rock fragments to depths ranging from less than one meter to more than 200 m (up to about 700 ft).

Pyroclastic flows can also lead to secondary hazards, especially flooding and lahars (destructive mud flow) by:

1. Eroding, melting, and mixing with snow and ice, thereby sending a sudden torrent downstream.
2. Damming or blocking streams in volcanic valleys, which may create lakes behind the blockage that eventually overtop and erode the blockage producing a rush of water and volcanic material downstream.
3. Increasing the rate of stream runoff and erosion during rainstorms due to the creation of an easily eroded landscape with sparse vegetation.

Tephra/Ash Hazards

All explosive volcanic eruptions generate tephra, fragments of rock that are produced when magma or rock is explosively ejected. The largest fragments, blocks and bombs (>64 mm, 2.5 inches diameter), can be expelled with great force but are deposited near the eruptive vent. Lapilli-sized material (6-64 mm, 0.24-2.5 inches diameter) can be carried upward within in a volcanic plume and downwind in a volcanic cloud, but fall to the ground as the eruption cloud cools. The smallest material, volcanic ash (<2 mm diameter) is both easily convected upward within the plume and carried downwind for very long distances; as it falls out of suspension it can potentially affect communities and farmland across hundreds, or even thousands, of square kilometers (miles).

Ashfall rarely endangers human lives, but it can have devastating effects on the things that we rely upon from day to day. As a result of its fine-grained abrasive character and widespread distribution by wind, ashfall and volcanic ash clouds are a major hazard to aviation. The primary hazard from Alaska volcanoes is ash clouds impacting aviation and ashfall reaching areas downwind, owing to widespread dispersal by wind.

Ash fallout to the ground can pose significant disruption and damage to buildings, transportation, water and wastewater, power supply, communications equipment, agriculture, and primary production leading to potentially substantial societal impacts and costs, even at thicknesses of only a few millimetres or inches. Additionally, fine grained ash, when ingested can cause health impacts to humans and animals.

Impacts from ashfall are more complex and multi-faceted than for any of the other volcanic hazards. Variabilities include the distance from the eruption source, orientation and dispersion of the eruption cloud, the amount of ashfall received, physical and chemical properties of the ash, characteristics of the receiving environment (such as climate and land use), and the ability of affected community to adapt to ashfall.

Lava Flow Hazards

Lava flows are streams of molten rock that pour or ooze from an erupting vent. Lava is erupted during either nonexplosive activity or explosive lava fountains. The speed at which lava moves across the ground depends on several factors, including (1) type of lava erupted and its viscosity; (2) steepness of the ground over which it travels; (3) whether the lava flows as a broad sheet, through a confined channel, or down a lava tube; and (4) rate of lava production at the vent.

Fluid basalt flows can extend tens of kilometers from an erupting vent. The leading edges of basalt flows can travel as fast as 10 km/h (6 mph) on steep slopes but they typically advance less than 1 km/h (0.27 m/s or about 1 ft/s) on gentle slopes. But when basalt lava flows are confined within a channel or lava tube on a steep slope, the main body of the flow can reach velocities >30 km/h (19 mph).

Viscous andesite flows move only a few kilometers per hour (couple feet per second) and rarely extend more than 8 km (5 mi) from their vents. Viscous dacite and rhyolite flows often form steep-sided mounds called lava domes over an erupting vent. Lava domes often grow by the extrusion of many individual flows

>30 m (100 ft) thick over a period of several months or years. Such flows will overlap one another and typically move less than a few meters per hour.

Everything in the path of an advancing lava flow will be knocked over, surrounded, buried, or ignited by the extremely hot temperature of lava. When lava erupts beneath a glacier or flows over snow and ice, meltwater from the ice and snow can result in far-reaching lahars. If it enters a body of water or water enters a lava tube, the water may boil violently and cause an explosive shower of molten spatter over a wide area. Methane gas, produced as lava buries vegetation, can migrate in subsurface voids and explode when heated. Thick viscous lava flows, especially those that build a dome, can collapse to form fast-moving pyroclastic flows.

Deaths caused directly by lava flows are uncommon because most move slowly enough that people can move out the way easily. Death and injury can result when onlookers approach an advancing lava flow too closely or their retreat is cut off by other flows. Deaths attributed to lava flows are often due to related causes, such as explosions when lava interacts with water, the collapse of an active lava delta that forms where lava enters a body of water, asphyxiation due to accompanying toxic gases, pyroclastic flows from a collapsing dome, and lahars from meltwater.

Other natural phenomena such as hurricanes, tornadoes, tsunami, fires, and earthquakes often destroy buildings, agricultural crops, and homes, but the owner(s) can usually rebuild or repair structures and their businesses in the same location. Lava flows, however, can bury homes and agricultural land under tens of meters of hardened black rock; landmarks and property lines become obscured by a vast, new hummocky landscape. People are rarely able to use land buried by lava flows or sell it for more than a small fraction of its previous worth.

Lahar Hazards

Lahar is an Indonesian term that describes a hot or cold mixture of water and rock fragments that flows down the slopes of a volcano and typically enters a river valley. Small seasonal events are sometimes referred to as "debris flows", especially in the Cascades. Lahars generally occur on or near stratovolcanoes, such as those of the Aleutian volcanic arc in Alaska and the Cascade Range in the Western U.S.

A moving lahar looks like a roiling slurry of wet concrete, and as it rushes downstream, the size, speed, and amount of material carried can constantly change. The initial flow may be relatively small, but a lahar may grow in volume as it entrains and incorporates anything in its path – rocks, soil, vegetation, and even buildings and bridges. The flowing slurry may consume additional water through melting of snow and ice or by engulfing river or lake water. Voluminous lahars commonly grow to more than 10 times their initial size as they move downslope. In steep areas, lahars can exceed speeds of 200 km/hr (120 mi/hr), but as they move farther away from a volcano and decelerate in lowland areas, they eventually begin to deposit some of the load and decrease in size.

Eruptions may trigger lahars by melting snow and ice or by ejecting water from a crater lake. Pyroclastic flows can generate lahars when extremely hot, flowing rock debris erodes, mixes with, and melts snow and ice as it travel rapidly down steep slopes.

Lahars can also be formed when high-volume or long-duration rainfall occurs during or after an eruption. On steep slopes, rainwater can easily erode and transport fine-grained, loose volcanic sediment and form a slurry, especially if vegetation has not had time to grow back on recent volcanic deposits.

Some of the largest lahars begin as landslides of wet, hydrothermally altered rock on the steep flanks of volcanoes. These types of collapse and resultant lahars are natural events during a stratovolcano's life history and can occur long after it stops erupting.

Lake breakout floods that occur without an eruption can also lead to lahars. They commonly occur after a stream becomes blocked by a volcanic landslide or pyroclastic flow that forms a natural dam. The most frequent cause of a lake breakout is the overflow of water across a newly formed natural dam, followed by rapid erosion of the loose rock debris. By further erosion and entrainment of sediment and water, the initial flood can transform into a slurry and increase in volume as it races downvalley.

Large lahars can crush, abrade, bury, or carry away almost anything in their paths. Buildings and valuable land may be partially or completely buried. By destroying bridges and roads, lahars can also trap people in areas vulnerable to other hazardous volcanic activity, especially if the lahars leave fresh deposits that are too deep, too soft, or too hot to cross.

Over a period of weeks to years after a volcanic eruption, the erosion and transportation of loose volcanic deposits can lead to severe flooding in areas far downstream from a volcano. Intense rainfall easily erodes loose sediment on steep slopes to produce lahars that travel onto flood plains and bury entire towns and valuable agricultural land. These rainfall-induced lahars can wreak havoc on rivers and streams, sometimes depositing so much sediment that chronic flooding also becomes a problem.

Landslide Hazards

Landslides are large masses of wet or dry rock and soil that fall, slide, or flow very rapidly under the force of gravity. Landslides commonly originate as massive rock falls or avalanches, which disintegrate during movement into fragments ranging from small particles to blocks hundreds of meters across. If the landside is large enough and contains a high-enough percentage of water and fine material (typically, >3-5 percent of clay-sized particles), it may transform into a lahar that can travel as much as 200 km (120 mi) downstream.

Landslides are common on volcanic cones because they are tall, steep, and weakened by the rise and eruption of molten rock. Magma releases volcanic gases that partially dissolve in groundwater, resulting in a hot acidic hydrothermal system that weakens rock by altering minerals to clay. Furthermore, the mass of thousands of layers lava and loose fragmented rock debris can lead to fault zones that move frequently.

Volcano landslides (debris avalanches) range in size from less than 1 km (0.24 mi) to more than 100 km (24 mi). The high velocity and great momentum of landslides allows them to cross valley divides and run up slopes several hundred meters high. For example, the landslide at Mount St. Helens on 18 May 1980, had a volume of 2.5 km^3 (0.6 mi^3), reached speeds of 50-80 m/s (100-180 mi/hr), and surged up and over a 400-m-tall (1,300 ft) ridge located about 5 km (3 mi) from the volcano.

Several conditions can trigger landslides:

1. intrusion of magma into a volcano.
2. explosive eruptions.
3. large earthquake directly beneath a volcano or nearby (typically >M5).
4. heavy or long-lived rainfall that saturates the ground.

Volcanic Gas Hazards

Magma contains dissolved gases, which provide the driving force that causes most volcanic eruptions. As magma rises towards the surface and pressure decreases, gases are released from the liquid portion of the magma (melt) and continue to travel upward and are eventually released into the atmosphere. Large eruptions can release enormous amounts of gas in a short time. The 1991 eruption of Mt. Pinatubo is thought to have injected more than 250 megatons of gas into the upper atmosphere on a single day. However, even if magma never reaches the surface, gases can often escape continuously into the atmosphere from the soil, volcanic vents, fumaroles, and hydrothermal systems.

By far the most abundant volcanic gas is water vapor, which is harmless. However, significant amounts of carbon dioxide, sulfur dioxide, hydrogen sulfide, and hydrogen halides can also be emitted from volcanoes. Depending on their concentrations, these gases are all potentially hazardous to people, animals, agriculture, and property.

Carbon dioxide constitutes approximately 0.04% of the air in the Earth's atmosphere. In an average year, volcanoes release between about 180 and 440 million tonnes of carbon dioxide. When this colorless, odorless gas is emitted from volcanoes, it typically becomes diluted to low concentrations very quickly and is not life threatening. However, because cold carbon dioxide gas is heavier than air it can flow into in low-lying areas where it can reach much higher concentrations in certain, very stable atmospheric conditions. This can pose serious risks to people and animals. Breathing air with more than 3% CO2 can quickly lead to headaches, dizziness, increased heart rate and difficulty breathing. At mixing ratios exceeding about 15%, carbon dioxide quickly causes unconsciousness and death.

In volcanic or other areas where CO2 emissions occur, it is important to avoid small depressions and low areas that might be CO2 traps. The boundary between healthy air and lethal gas can be extremely sharp; even a single step upslope may be adequate to escape death. In 2006, three ski patrol members were killed at Mammoth Mountain ski resort after falling into a snow depression surrounding a volcanic fumarole and filled with cool CO2 gas. High concentrations of CO2 gas in soils can also damage or destroy vegetation, as is visible in several areas on Mammoth Mountain.

In addition to their direct hazard, volcanic CO2 emissions also have the capacity to affect the global climate, but scientific studies indicate that the average global volcanic output is insignificant when compared to emissions from human activity.

Sulfur dioxide is a colorless gas with a pungent odor that irritates skin and the tissues and mucous membranes of the eyes, nose, and throat. SO2 emissions can cause acid rain and air pollution downwind of a volcano—at Kīlauea volcano in Hawaii, high concentrations of sulfur dioxide produce volcanic smog (VOG) causing persistent health problems for downwind populations. During very large eruptions, SO2 can be injected to altitudes of greater than 10km into the stratosphere. Here, SO2 is converted to sulfate aerosols which reflect sunlight and therefore have a cooling effect on the Earth's climate. They also have a role in ozone depletion, as many of the reactions that destroy ozone occur on the surface of such aerosols.

Hydrogen sulfide is a colorless, flammable gas with a strong, offensive odor. It is sometimes referred to as sewer gas. Interestingly, the human nose is more sensitive to H2S than any gas monitoring instrument we have today: air mixtures with as little as 0.000001% H2S are associated with a rotten egg smell. Unfortunately, however, our sense of smell is not a reliable alarm - at mixing ratios above about 0.01%, H2S becomes odorless and very toxic, causing irritation of the upper respiratory tract and, during long exposure, pulmonary edema. Exposure to 500 ppm can cause a human to fall unconscious in 5 minutes and die in an hour or less.

When magma ascends close to the surface, volcanoes can emit the halogens fluorine, chlorine, and bromine in the form of hydrogen halides (HF, HCl and HBr). These species are all strong acids and have high solubility; therefore they rapidly dissolve in water droplets within volcanic plumes or the atmosphere where they can potentially cause acid rain. In an ash-producing eruption, ash particles are also often coated with hydrogen halides. Once deposited, these coated ash particles can poison drinking water supplies, agricultural crops, and grazing land.

Source: Excerpt from Appendix B Region 8 Japan Taiwan and Marianas (2011)

Twenty-one Holocene volcanoes are present in the Marianas Islands (including Guam). Eleven submarine and 10 subaerial stratovolcanoes. Rock types range from basaltic to dacitic with basalts and andesites most common. Forty-nine of 52 Holocene eruptions are historically recorded but geological record for the area is sparse and poorly understood.

The population of Marianas is sparse with the largest populations located in Saipan and Hagatna. Populations within 30 km of the volcanoes is 1%, however, when extended to 100 km, all of the Marianas are included.

As of 2011, monitoring was in place for the three volcanoes (hitorically active Anatahan and Pagan, and Holocene Sarigan). However, as of 2014, Anatahan and Sarigan were not monitored due to damaged equipment. USGS website indicates monitoring systems remain unoperational. USGS website also indicates that Pagan is no longer monitored seismically. No date or reason is provided.

Three classifed volcanoes in the region are:

1. Farrallon de Pajaros: No eruptions over VEI 2, Hazard Level I, Risk Level I (no local population)
2. Anatahan VEI 3, Hazard Level III, Risk Level I (no local population)
3. Pagan VEI 4, Hazard Level III, Risk Level I (no local populaiton)

All other volcanoes are unclassified. Nine have no Holocene eruption record. Three of these (Zealandia Bank, Sarigan, and Esmerelda Bank) have experienced unrest since 1900 at seven of their volcanoes.

Overall Population Exposure Index (PEI) for Marianas region is low at 1 and 2 out of a possible PEI of 7.

Source: USGS Seismic Hazard Assessment for Guam and the Northern Mariana Islands (2012)

The 14 Northern Mariana Islands extend 800 km north from Guam along the arc to Farallon de Pajaros island (20.5°N, 144.9°E). The northernmost islands are largely uninhabited owing to ongoing volcanic threats and only the three largest southern islands, Rota (14.2°N, 145.2°E), Tinian (15.0°N, 145.6°E), and Saipan (15.2°N, 145.8°E), support substantial populations. The total area of the Northern Mariana Islands is 460 km^2 and the 2011 population was 50,000 (CIA World Factbook, 2011).

In modeling the seismic hazard of the region it is important to recognize that no great—or even very large––thrust earthquake has ever been associated with the Mariana plate boundary. On the basis of its seismic history and tectonic expression, the Mariana megathrust is commonly categorized as the weakly coupled, “aseismic” end-member in global subduction-zone classifications (Uyeda and Kanamori, 1979; Ruff and Kanamori, 1980; Zhang and Lay, 1992).

The Mariana Islands are formed of volcanic rocks and calcareous sedimentary rocks of Tertiary and Quaternary age. As noted above, no great earthquake has ever been associated with the Mariana megathrust interface. In the taxonomy of global subduction systems proposed by Uyeda and Kanamori (1979), weak plate coupling and low seismic activity on the interface correlate with extension in the overriding plate, active back-arc spreading, old subducting lithosphere, and a steep Benioff zone. The Mariana system shows a predominance of extensional structural features (for example, high-angle normal faults) in the shallow fore-arc and little evidence of sediment accretion at the inner trench wall; both observations are consistent with weak coupling in the subduction zone (Hussong and Uyeda, 1981).

It is not known whether very large earthquakes can occur on the Mariana subduction megathrust or, if they do, what their rates and sizes are. The evidence for weak seismic coupling precludes estimating seismic activity rates directly from plate-motion data. Instead we assume an exponential frequency-magnitude distribution, extrapolate the rates of historical earthquakes associated with the megathrust, and judge that the implied rates for large earthquakes seem reasonable given the incomplete Mariana seismic history. The limited history also complicates direct estimates of maximum magnitudes. We consider two maximum

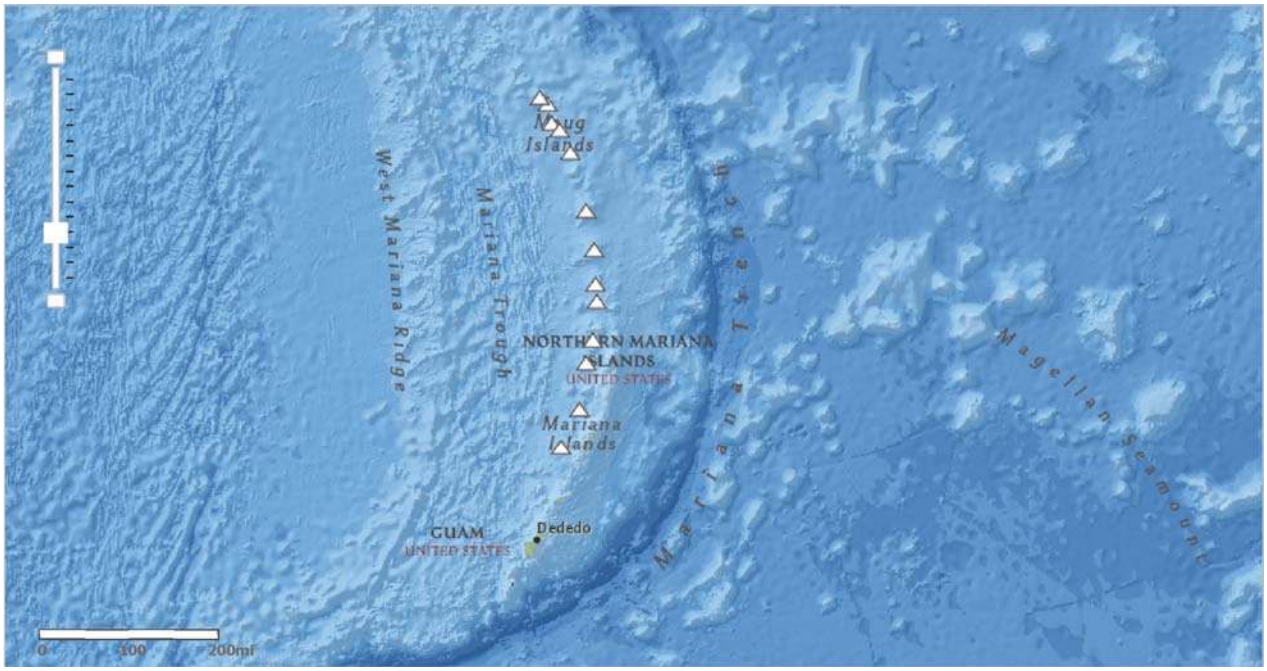
magnitudes for the megathrust, one based on the local history and one from consideration of other subduction zones.

Source: NREL CNMI Initial Technical Assessment Report (2011)

Saipan lies on a regional trend of high heat flow associated with the Izu-Bonin-Mariana (IBM) volcanic arc system, an active convergent plate boundary with a subduction zone and the Marianas Trench caused by westward-directed subduction of the Pacific lithospheric plate. The central and northern islands of the IBM arc (from the island of Anatahan, 120 km north of Saipan, northwards) are volcanically active, with an eruption frequency of every five years on average. Saipan itself is not volcanically active, but its bedrock, beneath a blanket of reef limestone, consists of volcanic rock extruded as recently as 13 million years ago. Since that time, the axis of volcanism has apparently shifted tens of miles to the west of Saipan, where submarine eruptions in progress have been observed in deep water on a trend of seamounts about 30 km west of Saipan.

Part II. Volcano Inventory

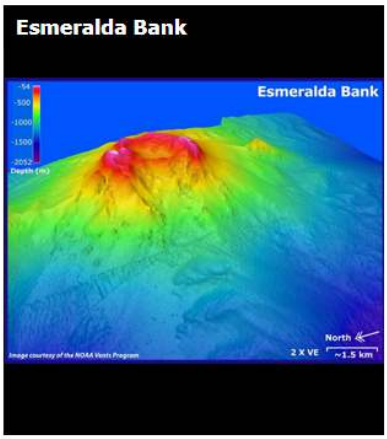
Source: USGS https://volcanoes.usgs.gov/index.html



Esmeralda Bank

Source: USGS https://volcanoes.usgs.gov/volcanoes/esmeralda_bank/

Location: CNMI
Latitude: 15° N
Longitude: 145.25° E
Elevation: -43 (m) -141 (f)
Volcano type: Submarine
Composition: Basalt - Andesite
Most recent eruption: Unrest in the Holocene

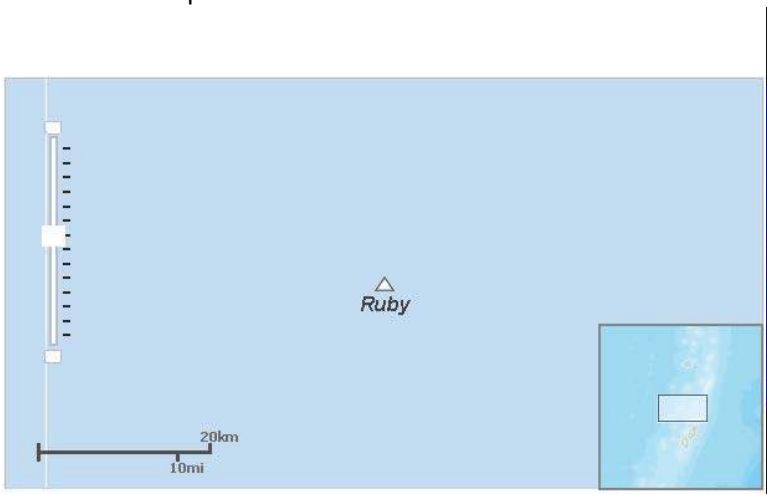


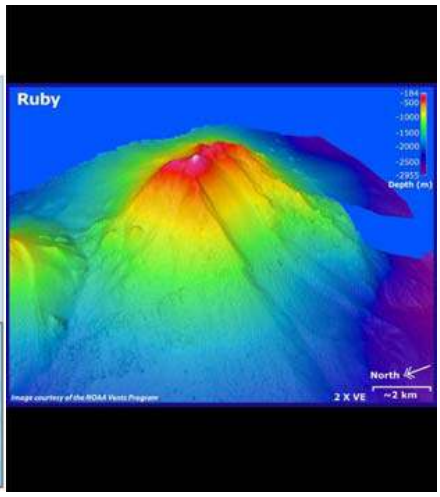
Esmeralda Bank is a massive submarine volcano with three summit cones oriented along a N-S line. Their summits are from 43 to 140 m beneath the sea surface. The highest, middle peak contains a 3-km-wide caldera open to the west and several parasitic cones. Frequent sulfur boils and water discoloration have been observed, which have variously been attributed to eruptive events or solfataric activity. A bathymetric map with two time vertical exaggeration shows Esmeralda Bank submarine volcano, as seen from the NW. Depths in this image range from 54 to 2052 meters. Bathymetry data (~25 meter resolution) is overlaid on SeaBat data (~50 meter resolution) courtesy of Yoshihiko Tamura, JAMSTEC. Image courtesy of Susan Merle (Oregon State University/NOʻAʻā Vents Program). From the Smithsonian Global Volcanism Program.

Ruby

Source: USGS https://volcanoes.usgs.gov/volcanoes/ruby/

Location: CNMI
Latitude: 15.62°N
Longitude: 145.57°E
Elevation: -230 (m) -754 (f)
Volcano type: Submarine
Composition: Basalt
Most recent eruption: 1995 CE



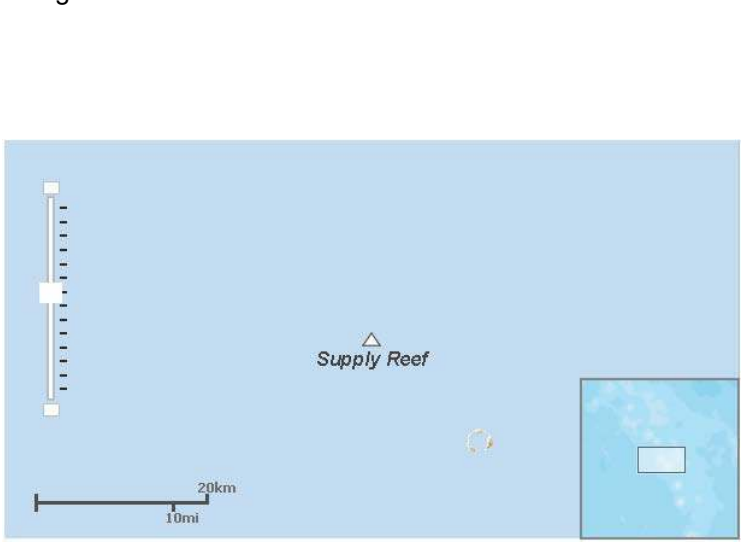


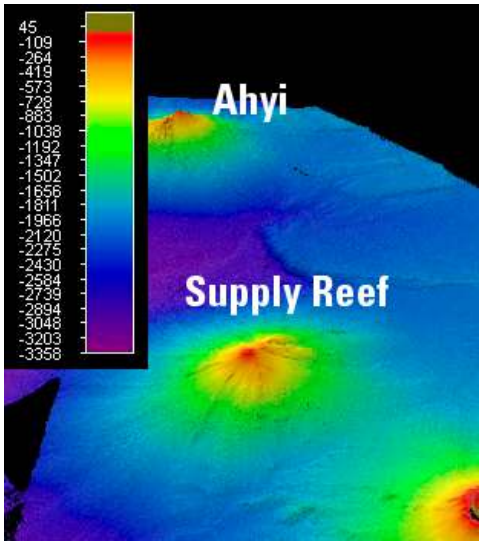
Ruby is a prominent, active submarine volcano in the Mariana Arc (2,300 km S of Tokyo) located NW of the Island of Saipan. Although signs of an eruption were first noted by fishermen about 11 October 1995, initial attempts to confirm their early observations failed. On 23 October 1995 fishermen reported that they could hear submarine explosions in that vicinity. A vessel from the Wildlife and Emergency Management Office of the Commonwealth of the Northern Mariana Islands confirmed these reports. An Associated Press news report stated that early on 25 October 1995 observers had seen dead fish and bubbles, and had smelled a sulfurous odor. On 27 October 1995 the Pacific Daily News reported the eruption site as 15°36'22"N, 145°34'33"E (15.6061°N, 145.5758°E). This spot clearly lies on the edifice identified by Bloomer and others (1985, p. 215) as Ruby (only ~1.7 km from the point specified in this report's heading).

Supply Reef (Unmonitored seismically)

Source: USGS https://volcanoes.usgs.gov/volcanoes/supply_reef/

Location: CNMI
Latitude: 20.13° N
Longitude: 145.1° E
Elevation: -8 (m) -26 (f)
Volcano type: Submarine
Composition: Andesite
Most recent eruption: 1989 CE
Designation: UNASSIGNED



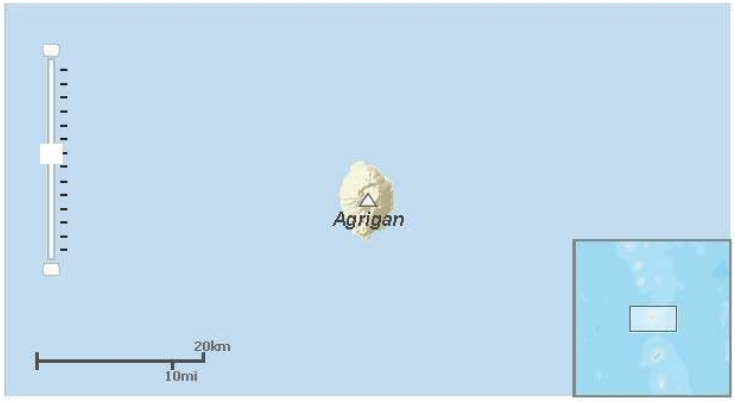


Supply Reef is a conical submarine volcano in the Northern Mariana Islands that rises to within 8 m of the sea surface. The andesitic seamount lies about 10 km NW of the Maug Islands, the emergent summit of a submarine volcano that is joined to Supply Reef by a low saddle at a depth of about 1800 m. Several submarine eruptions have been detected by sonar signals originating from points approximately located at distances of 15-25 km NW of Supply Reef (Smithsonian Global Volcanism Program).

Agrigan (Unmonitored seismically)

Source: USGS https://volcanoes.usgs.gov/volcanoes/agrigon/

Location: CNMI
Latitude: 18.77° N
Longitude: 145.67° E
Elevation: 8965 (m) 3,166 (f)
Volcano type: Stratovolcano
Composition: Basalt - Andesite
Most recent eruption: 1917 CE
Designation: UNASSIGNED

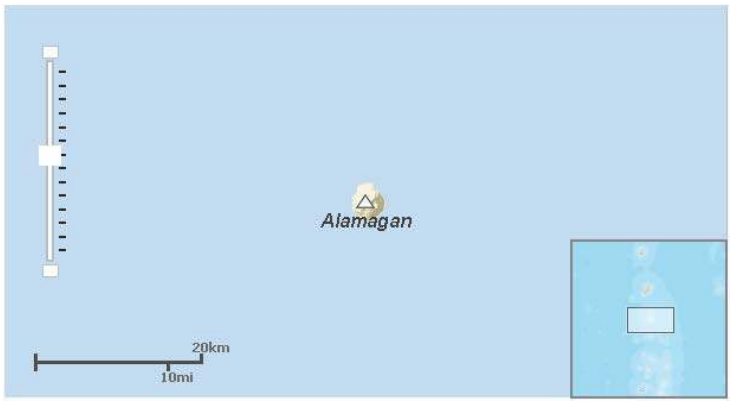


The highest of the Marianas arc volcanoes, Agrigan (also spelled Agrihan) contains a 500-m-deep, flat-floored caldera. The elliptical island is 8 km long; its 965-m-high summit is the top of a massive 4000-m-high submarine volcano, the second largest in the Marianas Islands. Deep radial valley dissect the flanks of the thickly vegetated stratovolcano. The elongated caldera is 1 x 2 km wide and is breached to the NW, from where a prominent lava flow extends to the coast and forms a lava delta. The caldera floor is surfaced by fresh-looking lava flows and also contains two cones that may have formed during the volcano's only historical eruption in 1917. This eruption deposited large blocks and 3 m of ash and lapilli on a village on the SE coast, prompting its evacuation (Smithsonian Global Volcanism Program).

Alamagan (Unmonitored seismically)

Source: USGS https://volcanoes.usgs.gov/volcanoes/alamagan/

Location: CNMI
Latitude: 17.6° N
Longitude: 145.83° E
Elevation: 744 (m) 2,441 (f)
Volcano type: Stratovolcano
Composition: Andesite - Basalt
Most recent eruption: 870 CE
Designation: UNASSIGNED

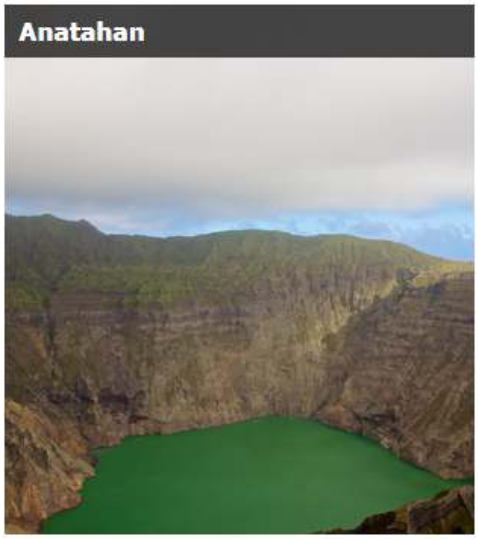


Alamagan is the emergent summit of a large stratovolcano in the central Mariana Islands with a roughly 350-m-deep summit crater east of the center of the island. The exposed cone is largely Holocene in age. A 1.6 x 1 km graben cuts the SW flank. An extensive basaltic-andesite lava flow has extended the northern coast of the island, and a lava platform also occurs on the south flank. Pyroclastic-flow deposits erupted about 1000 years ago have been dated, but reports of historical eruptions were considered invalid (Smithsonian Global Volcanism Program).

Anatahan (Monitoring station not operational as of 16 Aug 2017)

Source: USGS https://volcanoes.usgs.gov/volcanoes/anatahan/

Location: CNMI
Latitude: 16.35° N
Longitude: 145.67° E
Elevation: 790 (m) 2,592 (f)
Volcano type: Stratovolcano
Composition: Basalt - Dacite
Most recent eruption: 2008 CE
Designation: UNASSIGNED



The elongate, 9-km-long island of Anatahan in the central Mariana Islands consists of large stratovolcano with a 2.3 x 5 km, E-W-trending compound summit caldera. The larger western portion of the caldera is 2.3 x 3 km wide, and its western rim forms the island's 790-m high point. Ponded lava flows overlain by pyroclastic deposits fill the floor of the western caldera, whose SW side is cut by a fresh-looking smaller crater. The 2-km-wide eastern portion of the caldera contained a steep-walled inner crater whose floor prior to the 2003 eruption was only 68 m above sea level. A submarine volcano, NE Anatahan, rises to within 460 m of the sea surface on the NE flank of the volcano, and numerous other submarine vents are found on the NE-to-SE flanks. Sparseness of vegetation on the most recent lava flows on Anatahan had indicated that they were of Holocene age, but the first historical eruption of Anatahan did not occur until May 2003, when a large explosive eruption took place forming a new crater inside the eastern caldera (Smithsonian Global Volcanism Program).

Asuncion (Unmonitored seismically)

Source: USGS https://volcanoes.usgs.gov/volcanoes/asuncion/

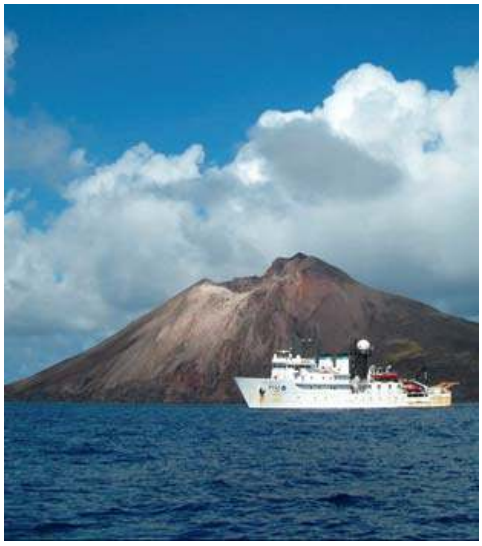
Location: CNMI
Latitude: 19.671° N
Longitude: 145.406° E
Elevation: 857 (m) 2,812 (f)
Volcano type: Stratovolcano
Composition: Andesite
Most recent eruption: 1906 CE
Designation: UNASSIGNED

A single large asymmetrical stratovolcano, steeper on the NE side, forms 3-km-wide Asuncion Island. The steep NE flank of the 857-m-high volcano terminates in high sea cliffs. The gentler SW flanks have low-angle slopes bounded by sea cliffs only a few meters high. The southern flank is cut by a large landslide scar. The southern flanks and western flanks are mantled by ash deposits that may have originated during eruptions in historical time. An explosive eruption in 1906 also produced lava flows that descended about half way down the western and SE flanks, but several other historical eruption reports are of uncertain validity. Few invesitgations have been done on the Cheref and Poyo seamounts, 30 and 50 km SE, respectively (Smithsonian Global Volcanism Program).

Farallon de Pajaros (Unmonitored seismically)

Source: USGS https://volcanoes.usgs.gov/volcanoes/farallon_de_pajaros/

Location: CNMI
Latitude: 20.538° N
Longitude: 144.896° E
Elevation: 360 (m) 1,181 (f)
Volcano type: Stratovolcano
Composition: Andesite
Most recent eruption: 1967 CE
Designation: UNASSIGNED



The small 2-km-wide island of Farallon de Pajaros (also known as Uracas) is the northernmost and most active volcano of the Mariana Islands. Its relatively frequent historical eruptions dating back to the mid-19th century have caused the andesitic volcano to be referred to as the "Lighthouse of the western Pacific." The symmetrical, sparsely vegetated summit is the central cone within a small caldera cutting an older edifice, remnants of which are seen on the SE and southern sides near the coast. Flank fissures have fed lava flows during historical time that form platforms along the coast. Both summit and flank vents have been active during historical time. Eruptions have also been observed from nearby submarine vents, and Makhahnas seamount, which rises to within 640 m of the sea surface, lies about 10 km to the SW (Smithsonian Global Volcanism Program).

Guguan (Unmonitored seismically)

Source: USGS https://volcanoes.usgs.gov/volcanoes/guguan/

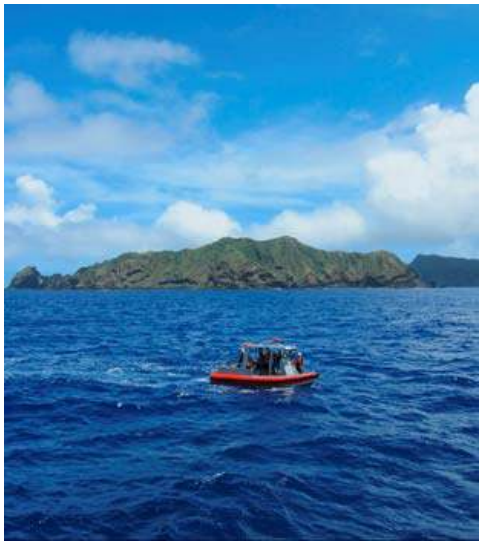
Location: CNMI
Latitude: 17.307° N
Longitude: 145.845° E
Elevation: 287 (m) 942 (f)
Volcano type: Stratovolcano
Composition: Andesite - Basalt
Most recent eruption: 1883 CE
Designation: UNASSIGNED

The small island of Guguan, only 2.8 km wide, is composed of an eroded volcano on the south, a caldera with a post-caldera cone, and a northern volcano. The latter has three coalescing cones and a breached summit crater that fed lava flows to the west and NW. The 287-m high point of the island is the south rim of the caldera. The only known historical eruption of Guguan took place between 1882 and 1884 and produced the northern volcano and lava flows that reached the coast (Smithsonian Global Volcanism Program).

Maug Islands (Unmonitored seismically)

Source: USGS https://volcanoes.usgs.gov/volcanoes/maug_islands/

Location: CNMI
Latitude: 20.02° N
Longitude: 145.22° E
Elevation: 227 (m) 745 (f)
Volcano type: Stratovolcano
Composition: Basalt - Dacite
Most recent eruption: 1989 CE
Designation: UNASSIGNED



Three small elongated islands up to 2.3 km long mark the northern, western, and eastern rims of a largely submerged 2.5-km-wide caldera. The highest point of the Maug Islands reaches only 227 m above sea level; the submerged southern notch on the caldera rim lies about 140 m below sea level. The caldera has an average submarine depth of about 200 m and contains a twin-peaked central lava dome that rises to within about 20 m of the sea surface. The Maug Islands form a twin volcanic massif with Supply Reef, about 11 km N. The truncated inner walls of the caldera on all three islands expose lava flows and pyroclastic deposits that are cut by radial dikes; bedded ash deposits overlie the outer flanks of the islands. No eruptions are known since the discovery of the islands by Espinosa in 1522. The presence of poorly developed coral reefs and coral on the central lava dome suggests a long period of general quiescence, although it does not exclude mild eruptions. A 2003 NOʻAʻā expedition detected possible evidence of submarine geothermal activity (Smithsonian Global Volcanism Program).

Pagan (Unmonitored seismically)

Source: USGS https://volcanoes.usgs.gov/volcanoes/pagan/

Location: CNMI
Latitude: 18.13° N
Longitude: 145.8° E
Elevation: 570 (m) 1,870 (f)
Volcano type: Stratovolcano
Composition: Basalt - Andesite
Most recent eruption: 2012 CE
Designation: UNASSIGNED

Pagan Island, the largest and one of the most active of the Mariana Islands volcanoes, consists of two stratovolcanoes connected by a narrow isthmus. Both North and South Pagan stratovolcanoes were constructed within calderas, 7 and 4 km in diameter, respectively. The 570-m-high Mount Pagan at the NE end of the island rises above the flat floor of the northern caldera, which may have formed less than 1000 years ago. South Pagan is a 548-m-high stratovolcano with an elongated summit containing four distinct craters. Almost all of the historical eruptions of Pagan, which date back to the 17th century, have originated from North Pagan volcano. The largest eruption of Pagan during historical time took place in 1981 and prompted the evacuation of the sparsely populated island (Smithsonian Global Volcanism Program).

Sarigan (Monitoring system not operational as of 16 Aug 2017)

Source: USGS https://volcanoes.usgs.gov/volcanoes/sarigan/

Location: CNMI
Latitude: 16.708° N
Longitude: 145.78° E
Elevation: 7538 (m) 1,765 (f)
Volcano type: Stratovolcano
Composition: Andesite - Basalt
Most recent eruption: Holocene
Designated: UNASSIGNED

Sarigan volcano forms a 3-km-long, roughly triangular island. A low truncated cone with a 750-m-wide summit crater contains a small ash cone. The youngest eruptions produced two lava domes from vents above and near the south crater rim. Lava flows from each dome reached the coast and extended out to sea, forming irregular shorelines. The northern flow overtopped the crater rim on the north and NW sides. The sparse vegetation on the flows indicates they are of Holocene Age (Smithsonian Global Volcanism Program).

Appendix C

STAKEHOLDER MEETINGS / COMMENTS

Date	Commenter	Via	Comments
9/18/2017	Efraim M. Atalig, Rota Mayor	Meeting at Rota Mayor's Office	Mayor inquiring if 30 hectares under Free Trade Zone will be in one area or multiple areas
			Priority: Seaport and Utility
			Prefers "Eco Tourism"
			Priority Uses for Public Land: 1- Homestead/Agriculture/Land Exchange 2. Economic Development
9/18/2017	Various: General Public	ROTA PUBLIC HEARING	Location of CUC Power Plant is on CPA Property (Relocate North)
			Runway Expansion area (+1000 ft) / Fuel Farm (By Airport)
			***Land Exchange Needs
			Cultural Area for old remains (5 Hectares)
			Landfill Site Location (Groundwater Impact)
			Law gave municipal council authority to zone, but never implemented
			Dugi Homestead (No Infrastructure/Hard Ground/Can't Develop)
			Finafa Homestead (Still Needs Additional Area?)
			Taro Farming at Sabana Stopped due to contamination concerns. Recommends DPL sanction and environmental study.
			Some water resources in the "back side" cut through private properties - ownership of water questioned
			Need Farmland in fertile area
			Habitat: Endangered Species (Crow) (444 Hectares Reserved?)
			Quarry Sites - Palii? DFW Problem?
			Inquiry on quarry in the middle of Sinapalo II. DPW looking into it?
			Public Park
			Lookout Areas - Island Perimeter
			CUC Water Easements
			Land for Clinic/Fire Stations/Detention Centers
			Sport Hunting Area (Sabana?)
			Flood Zone concerns
			Query on percentage of Public Land suitable for farming / accessible by heavy equipment?
			Sewer Treatment Plant
9/19/2017	Various: Rota Mayor's Cabinet Members	Meeting at Rota Mayor's Office	CUC is on CPA land. Need to relocate halfway between the two villages.
			Existing historic site at CPA area near CUC
			Need Sewage Treatment Plant - Must consider wind direction
			Water Reservoir - Desired area identified
			Rota Commerce - To provide numbers/data to JMK
			Agriculture: Sabana however there's contamination risk. (Not receptive to organic farming)
			Desires bigger area for farming (5-10 hectares)
			Consider utility availability for homestead designation
			Land Exhange
			Land for Government Offices (One Stop)

STAKEHOLDER MEETINGS / COMMENTS

Date	Commenter	Via	Comments
9/19/2017	Joey P. San Nicolas, Tinian Mayor	Meeting at Tinian Mayor's Office	Homestead Areas (Problems with Homestead without Infrastructure)
			Kastiyo: Set aside for development or agriculture?
			Pina Area - Landfill Site?
			Development: Obstacle-Labor Force Resource (Possible Land area for Training Institute)
			Protect Water Source
			Protect Cultural Resources (Taga House)
9/19/2017	Various: General Public	TINIAN PUBLIC HEARING	Farming/Ranchers: Desire 1 Hectare for Cattle
			(Land for) Government Facilities / Administrative Building
			Healthcare Facility (Current area inadequate?)
			DPS Site - Need Bigger (one for carolinas hts.)
			High fees for ranchers may threaten ranching land use
			Desires Zoning for Tinian
			Inquiry on accounting/inventory of Government Land (Titles officially granted?)
			Mention of a Tinian City Planner? (Need to Verify)
9/20/2017	Various: Tinian Mayor's Cabinet Members	Meeting at Tinian Mayor's Office	DPS (Matthew Masga) - "Regulations hindering contracts. Military Activity will hinder development. Need Developer screening / vetting."
			Inquiry on amount of Public Land available
			"DPL's policy to deny homestead grants to old (over 10 yrs since application submitted) applicants that have since aquired land is unfair."
			Kastiyo: 50/50 (of 800 hectares) for Agriculture and Homestead. Also set aside for wildlife habitat.
			Pina - Landfill/Conservation/Economic Activity
			Agriculture land areas
			Refered to Gaming Act for possible relevant details
9/20/2017	Henry Hofschneider - Saipan Mayor's Representative	Meeting at Saipan Mayor's Office	(Discussed Stakeholder Survey Comments)
			Quarry Needs
			Cockpit Arena
			Recreational Areas / Parks (Nature Trail - Old Railroad / Laulau Bay)
			Municipal (Solid) Waste "Convenience Centers" (One in each South and North area)
			Greenspace / Conservation
			Development currently at a fast pace
			Rights of Way (Land Exchange)
			Homestead Needs
9/20/2017	Various: General Public	SAIPAN PUBLIC HEARING	Concern for Erosion on East Managaha
			Concern for Effect of Land Use Near Neighborhoods
			"Enough Hotels"
			Concern for Local Beach Access (No Building Obstructions)
			(Avoid) development near homesteads
			"No development on North side - Precint 4"
			Ancient Burial Grounds
			COTA requesting meeting for discussion of their concerns
			School Sites (Check with PSS)
			Concern for Wetland Conservation/Protection
			Concern for policy makers possible deviation from Land Use Plan - Similar to changes to zoning regulations at the whim of legislators

STAKEHOLDER MEETINGS / COMMENTS

Date	Commenter	Via	Comments
9/21/2017	Northern Islands Mayor	Meeting at Northern Islands Mayor's Office	Currently Occupied Islands - Alamagan (No Vehicle), Pagan (1 ATV), Agrihan (1 ATV)
			Anatahan - Needs permission to visit (5 Mile Restriction) - "Can be re-occupied" (7 hrs from Saipan)
			70-80 Pagan Families / 30-40 Agrihan Families
			43 Agricultural lots allotted in Pagan
			2 Sites for Agricultural lots in Alamagan
			Pagan - Fisheries, Ports, Pozzolan, Museum Site (Tourism)
9/21/2017	Various: General Public	NORTHERN ISLANDS PUBLIC HEARING	Previous Residents want to return "home" to prior property (Considers lands previously cultivated by family generation as "private" and being passed on to family members?) (DPL considers entirely Public Land) Comment that although there is no "black and white" indicating residents are from there, they know through experience and family generations
			"Protect" - No Resorts
			Possible production of coconut oil for fuel
			Need Dock
			Eco Tourism (High End)
			Prefers that meeting be conducted in native language (with the belief that it will yield more comments or somehow encouraging more discussion). Requested for next Public Hearing.
			(Former) Residents (of Pagan) questioning location of agricultural homestead, being located in (higher and distant) areas away from previous settled location.
			(Former Residents) indicate they know which lands are suited for planting and livestock - Desire to be included in trip to the islands.
			There are "many" historical, sacred sites on Pagan. Concerned about plans for development and is against any leases for 99 years
			Protect against Casino/Resorts
			Concern about military plans for Pagan

STAKEHOLDER MEETINGS / COMMENTS

Date	Stakeholder	Representative(s)	Comments
9/21/2017	Marianas Visitors Authority	Christopher A. Concepcion Judy C. Torres	Need own land for office/visitor's center (Near Tourist Concentration) (Tinian and Rota already have property)
			Need more hotel tooms for growth (Should target Private Land first)
			Concerned about lease expiration - Supports Extension of Lease
			"Still room for little more growth" "Not 10,000 Rooms"
			(Opinion) 2019 CW termination will be extended
			Requests to re-send stakeholder survey
9/21/2017	Bank Of Guam	Marcie Tomokane	Revisit Article 11
			Term Limits (on leases) too short - Discouraging (Currently 25+15 years)
9/21/2017	Department of Commerce	Mark O. Rabauliman David R. Maratita	Tourists (should be in a) concentrated area instead of scattered
			Traffic Concerns
			Possible landfill expansion needs?
			Refered to Casino License and Amendments for additional information
			Identified SEDC (Strategic Economic Development Council) - May have data for economic analysis
			"Slow Down Growth"
			Interested in accounting of all public land
			"Fisherman's Wharf" type of development
			Requests to re-send stakeholder survey
9/21/2017	CNMI Governor	Governor Ralph Torres	"Continue trend of last 5 years"
			Possible pier expansion by PRD Park
			Maximize homestead on Pagan
			Outlook: Best Sunshine (next phase) and Tinian Dynasty (reopening)
9/22/2017	Tinian Delegation (Partial)	Senator Jude U. Hofschneider (et.al. partial Tinian Delegation)	PL 17-12 (50% of Public Land for Homesteads?)
			USAF Divert Airfield
			Cattle Ranches
			Homesteads
			Green Waste Facility
			Quarries (to fill?)
			Sewer Lines
			Water Reclamation
			PL 19-85 (New Route 205)
			Port Development (Boardwalk?)
			Saipan (Parks by Homesteads/Historic Sites/Right-of-Way Expansion for Storm Water Drainage, etc.)
9/22/2017	House of Representatives	Partial Members of House	Ed Propst: "Quality Areas to be Reserved" Concern about "Over Development"
			Alice Igitol: Reserve Land for School(s)/Agriculture/Homesteads
			Vinny Sablan: Inquired about how Rezoning affects Land Use Plan. Preservation of Land. Balanced Development.
			Donald Barcinas: Concerned about School Safety (Tsunami threat for schools by shoreline). Alternative Road Systems (DPW?) Use of Garapan Fishing Base.
			Glenn Maratita: 17 Species in Rota (DFW?)
			Larry Guerrero: 30K Sq. M. for Cultural Center (New Law?) Renewable Energy. Multi-Family Homestead. Former Military Sites (Hazard Sites?) Sugar Dock and Outer Cove Marina Use.

STAKEHOLDER MEETINGS / COMMENTS

Date	Stakeholder	Representative(s)	Comments
9/22/2017	Senate	Partial Members of Senate	Arnold Palacios: Recommends consulting DFW, DLNR, CRM, BECQ (Hazardous Materials Areas), DPW, and CUC. Recommends using TV (Public Channel). Emphasized Public Outreach/Input.
			Justo Quitugua: Advised to consult with PSS for School Plans
			Sixto Igisomar: Discussed Planning Agency? Referred to Guam's Plan. Identified Department of Commerce as a resource for Economic Indicators.
9/22/2017	Zoning Office	Therese T. Ogumoro, Zoning Administrator	Mentioned Garapan Revitalization Program
			Discussed Zoning in the absence of Public Land Use Plan
			October 2017 - To Update Zoning Map
10/2/2017	Office of Indiginous Affairs	Roman Tudela Jr Crispin Ogo	1. Cultural Plants Preservation (Weaving/Medicinal)
			2. Cultural Center ~ 30K Sq.M. (Kobler?) (Plantable Soils/Centralized Location/Internment of Historic Remains)
			3. Agricultural Use/Lease with Provisions to Plant Specific (Medicinal) Plants
10/4/2017	Saipan Chamber of Commerce	(Presentation to Group During SCC Meeting)	(Presentation Made - No Relevant Comments Made by Group)
10/11/2017	Public School System (PSS)	Glenn Muna Rachel Fusco	1. Reserve for Future High School (Above La Fiesta/Below Camacho Equipment) As Matuis
			2. Reserve "other" lands already identified by Commissioner/DPL
			3. 7-yr plan recently RFP (under evaluation) Prior Plan 2012 (collaboration needed)
			4. Relocation of Schools by Shoreline - Same Location (GTC/GES/Hopwood/San Antonio) GTC to As-Matuis with HS (~8 Hectares ie Chacha)
			5. No Forseeable Needs on Northern Islands within the next few years although previous Commissioners have discussed potential school on Pagan with Governor
			6. No Request for Additional Area for Rota and Tinian
			7. Lynette Villagomez - Data Source
			8. Split MHS (Puerto Rico Area)
10/16/2017	Commonwealth Office of Transportation Administration (COTA)	Diego Songsong	1. Park and Ride Lots (Kagman)
			2. Additional Stakeholder Survey Submitted
			3. Bus Turnouts Along Road
			4. Bus Turn-Around Area by Marianas Resort
			5. Requesting Additional Land Adjacent to Property Lot # 206 E 02
			6. Rota/Tinian - On Demand (Park & Maintain / Small Bldg. ~2000 SQ.M.
10/24/2017	Commonwealth Ports Authority (CPA)	Christopher S. Tenorio	1. Saipan - Desires 3 lots at Seaport Area across Street (Lot 117 D 06/117 D 07/117 D 08)
			2. Tinian - Assign Mobile Lot to CPA
			3. Not interested in control of East Harbor (Liability)
			4. Pagan Airstrip - Assign to CPA?
			5. Saipan Airport can accommodate more arrivals without expansion - only scheduling issue
10/25/2017	Department of Public Works (DPW)	James Ada	1. Tinian - New Route (208? See Senator Jude Bill)
			2. Saipan - Widen LaoLao Bay Road
			3. Transfer Station at Kagman/As Gonno (Already Assigned Lots?)
			4. Landfill Expansion Possibility
			5. Rota - Route 100 (Private Property Issues)

STAKEHOLDER MEETINGS / COMMENTS

Date	Stakeholder	Representative(s)	Comments
10/25/2017	Commonwealth Utilities Corporation (CUC)	Gary Camacho Larry Manacop Yvonne	1. CUC Administrative Bldg ~ 4 Hectares - Saipan / Rota - Sinapalu Area ~1 Hectare Centally located - see map / Tinian - OK
			2. New Power Plant - Lower Base Area (Former DPW/CUC)
			3. Saipan - 200K Tank - As Matuis Area Above Existing
			4. Rota - Relocate Power Plant (*Wind Direction) - South of Existing?
			5. Saipan - Sewer Treatment Expansion - Same Area Agigan & Sadog Tasi (Or New @ North Side)
			6. Need Sewage Treatment in Kagman ~ 3 Hectares
			7. Tinian - Sewer Treatment by Power Plant (Desired within 10 years)
			8. Rota - Sewage Treatment in South and North (Unlikely in 10 years)
			9. Rota - Solar Farm by Airport
			10. Saipan - Solar Farm - North/Naftan (5MW each)
			11. Easements for Designated Land Uses
			12. New Tank at Agag - Across As Teo Road
10/26/2017	Beareau of Environmental and Coastal Quality (BECQ)	Eli Cabrera	1. Defer to HPO for Historic Sites (Japanese Shrines / UXO)
			2. Provided Major Siting Permit Book
			3. Janice Castro - Contact for Wetland Inventory and Coastal Areas for Protection
			4. Ray Masga - Contact for Environmentally Sensitive Areas
	Division of Parks and Recreation		1. Transfer Properties Being Maintained to Parks & Recreation (DLNR) (Including Recreational Sites / Basketball, etc.)
			2. Designated Area for Pet Park
10/31/2017	Department of Lands and Natural Resources (DLNR)	Anthony T. Benavente Gus Kaipat	1. Consult DFW for Wildlife Sanctuarys / Endangered Species
			2. Reiterated Desire for Grant of Public Domain for Parks/Recreational Areas Maintained by DLNR
			3. New Parks - Kagman / DanDan
			4. Vic Guerrero - Contact for Forestry
			5. Manny Tenorio - Contact for Future Farm Plots (Division of Agriculture)
			6. Eco-Tourism for Pagan
12/28/2017	BECQ	Richard Salas Emily Northrop Kate? Robbie Greene	Informed of Public Permitting App - Website
			(Land) Suitability Index (Internal Use but may be available)
			Papao (North) - Prestine Area (Maintain)
			Priority Habitats - See DFW
			EPA - For Endangered Species
			Concern for Public Access to Beaches
			Watershed Maps
			Advised to consult James Manglona - Rota Forestry
			Current Shoreline Study by Army Corp. (Completed by Mid January?)
			Requested link to 1989 Land Use Plan
			Provided USB with files

STAKEHOLDER MEETINGS / COMMENTS

Date	Commenter	Via	Comments
10/31/2017	Vicente Sablan Aldan, MD	DPL	MPLT funds to be repurposed for benefit of "quantum blood" individuals
			Avoid homestead along beach. Assign homesteads at "mountain tops".
			Establishing of a new board with specific criteria to manage "rental fee" for rooms built on public land.
			Comments related to use of funds generated from Public Land Use leases.
10/2/2017	Remi Sablan	Email	Capitol Hill housing 1200 to 1300 be reserved for Central Government offices. Low rise buildings only.
			To identify new public land for San Roque Elementary School, Garapan Elementary and San Antonio Elementary School. Current location is "too close to the water…high risk for tsunami".
			To identify suitable public land for cultural center and indigenous monument on all islands.
			To identify suitable public land for convention center on Saipan.
10/2/2017	First Hawaiian Bank (Juan Lizama/Vickie Izuka)	Stakeholder Survey Form	Currently leases from Marianas Management (Private?)
			Desires Garapan area property.
			No other comments
1/16/2018	Yvette R. Sablan, Special Assistant - Office of the Governor	Stakeholder Survey Form	(Agency has satisfactory property inventory and does not have additional property needs.)
			(No comments given regarding use of Public Lands)
1/17/2018	Ocsac C. Torres, Executive Officer - CNMI Military Veterans Affairs Office	Stakeholder Survey Form	(Agency has satisfactory property inventory and does not have additional property needs.)
			(No comments given regarding use of Public Lands)
1/18/2018	Janice Castro, DCRM Director	Stakeholder Survey Form	DCRM supports wise use and conservation of all lands in CNMI.
			Conversations regarding welands exchange compensation remain ongoing with DPL and DLNR.
			Limted use is permittable within the "shoreline area of particular concern" which runs from the 0-15ft high tide line or 1-150 of cliff line on all islands.
			Goals to maintain and enhance wetlands and conserve shoreline vegetation and processes (see APC map at BECQ Permitting App)
			Goals to maintain and enhance puclic shoreline access.
			DCRM supports maintaining and enhancing public access as well as coastal resources throughout CNMI
			(DCRM) would welcome the opportunity to comment on additional public land use planning proposals as drafts become available

STAKEHOLDER MEETINGS / COMMENTS

Date	Commenter	Via	Comments
			Current inventory of 8 sites granted land use rights with combined area of 45,421 square meters.
			Needs vacant land for cockpit arena with parking ~ 1 to 1.5 hectares preliminarily identified in As Gonno, near GPPC yard or within DLNR in As-Perdido. Sewer access required.
			Considering constructing Road Maintenance Shops in southern and northern parts of Saipan. Parking, Storage and wash down areas. Each between 3000 and 8000 square meters.
			Needs site for municipal rock quarry to meet statuatory requirments of maintaining secondary roads.
			Requesting assignment of Garapan Fishing Base for annual July 4th celebrations.
			Desires land area of ~ 5000 (sq.m.) for plant nursery to meet beautification efforts. Site should have access to road, water, sewer and electricity.
			Desires land area of ~ 5000 sq. m. for staging areas preferably one in Kagman near subdivisions and one near As Gonno area or San Antonio area (south).
			Supports and emphasizes the need for BECQ's proposed two sites for convenient centers. (One in south side and one in east side). Land area should be between 5000 and 10000 sq.m.
9/21/2017	David M. Apatang, Mayor, Saipan	Stakeholder Survey Form	Desires sites for recreational areas and parks. To include nature trails and open field sport complexes.
			Criteria for requested land: not more than 10 degrees slope, accessible to infrastructure, away from residential, commercial, natural resources, and tourist districts.
			"The island of Saipan needs to take a very serious look at the homestead program…and decide how much more the current land inventory could sustain it."
			"The zoning of uses and continued regulation of land use should be encouraged to ensure residents and commercial establishments co-exist harmoniously."
			"At some point in the future…the CNMI must enforce a plicy of limiting large develpments for comercial operations on available public lands until such time it has decided…whether the homestead program must continue or cease. Agencies responsible for the construction and maintenance of infrastructure should be involved in the setting policies on future large developments."

STAKEHOLDER MEETINGS / COMMENTS

Date	Commenter	Via	Comments
			"Use of public lands has been guided by the Department of Public Lands' policy that commercial uses (inclusive of industrial uses) should be restricted to areas where both residential and natural resources could co-exist with such uses, be it intense or not."

STAKEHOLDER MEETINGS / COMMENTS

Date	Commenter	Via	Comments
10/06/2017 10/16/2017	Deigo Songsong, Commonwealth Office of Transit Authority (COTA)	Stakeholder Survey Form	Desires preferred lot adjacent to Lot No. 206 E 04 (COTA Administrative Office Location) ~5000 sq.m. for future expansion
			Desires ~2000 sq.m. on Tinian for field office/maintenance facility.
			Desires ~2000 sq.m. on Rota for field office/maintenance facility.
			Desires Garapan Bus Transit Station at Paseo De Marianas along Beach Road.
			Desires Northern Marianas College Bus Transit Station near old Galaxy Snack Bar along Route 307.
			Desires Kagman Bus Transit Station to be located across kagman Market along Route 34.
			Desires Transit Station on North area possibly around Marianas Resort area.
10/11/2017	Jeff Race, President, NMI Tennis Association	Stakeholder Survey Form	Desires property suitable to develop NMI National Tennis Center
			~12,000 sq.m.
			Flat, centrally or southerly located.
1/26/2018	Phillip T. Mendiola-Long, Bridge Investment Group, LLC	Stakeholder Survey Form	Goals for 3 resort development properties, staff housing, condominium development, individual home development and retail service industry development.
			Preferred location: Kastiyu or Pena for golf course development
			Desires Ocean view, beach front, coral outcroppings for long-term lease (55 yr fee simple)
			Need plan for future housing requirements and farming. Need existing lands to be carefully managed for future use.
			"Need master plan for next 20 year development (military/tourism)…Reserve land."
2/1/2018	Hun Kim Saipan World Resort	Stakeholder Survey Form	"…putting public land on the auction block upon expiration severely affects stability."
			"Existing stakeholders should be given first opportunity to renew. Otherwise, DPL is doing a good job."
2/6/2018	Rosemund B. Santos Guihan Pasifiku, Inc.	via DPL email - Letter dated 09/23/2014	Response to Request to Establish a Fishing Village on Pagan Island
			Possible issuance of 5yr permit pending submission of additional documents (Not known if subsequently submitted).
3/29/2018	Glenn H Manglona	via DPL website	(Representing "Indigenous people of the NMI" / Marpi Area concern)
			"A designated public lands shall be reserved for the indigenous ntive use to preserve its language and culture of not less than 2,000 acres in the Marpi area.

STAKEHOLDER MEETINGS / COMMENTS

Date	Commenter	Via	Comments
2/8/2018	Efrain F. Camacho	Email / Newspaper Survey	Strongly opposed to issuance of any permit or designations for ranching on any public land especially in Marpi area…as is practiced in the CNMI is very destructive to the land.
			"Subsistence farming is not feasible and not the best use of the land. Homesteads should be carefully reviewed and only those land that can be easily developed should be use."
			"…strongly feel the government should beef up its enforcement section of its management policies."
			No agriculture activities in Marpi especially ranching.
			Saipan North / Chamorro / No to more Economic Development / Tourism should be higher / Jobs Are Widely Available / No to subsistence Farming
			Priorities: Conserved(1),Lease By Developers(4),Residential Homesteads(5),Government Facilities(8),Farming Set-Aside(8),Agricultural Homesteads(8)
2/8/2018	Dolores Palacios Camacho	Email and Faxed - Newspaper Survey (4 Surveys)	1 of 4: Saipan Central / Other / Yes to more Economic Development - Eco Tourism / Tourism should Not be higher / Jobs Are Widely Available / No Response to subsistence Farming
			1 of 4: Priorities: Conserved(1),Lease By Developers(3),Residential Homesteads(6),Government Facilities(5),Farming Set-Aside(4),Agricultural Homesteads(2)
			1 of 4: "Please, we need long term planning for economic growth that preserves the beauty and liveability. If Saipan get over developed, the beaches continued to be trashed, and tourists are allowed to work as tour guides, tourists will not want to come here anymore and the islands wont prosper.
			2 of 4: Saipan South / Chamorro/Carolinian / Yes to more Economic Development - Shopping Mall / Tourism should be higher / Jobs Are Not Widely Available / No to subsistence Farming
			2 of 4: Priorities: Conserved(1),Lease By Developers(8),Residential Homesteads(1),Government Facilities(5),Farming Set-Aside(8),Agricultural Homesteads(8)
			3 of 4: Saipan North / Chamorro / Yes to more Economic Development - (Shopping) Mall / Tourism should be higher / Jobs Are Not Widely Available / No response to subsistence Farming
			3 of 4: Priorities: Conserved(1),Lease By Developers(6),Residential Homesteads(1),Government Facilities(5),Farming Set-Aside(4),Agricultural Homesteads(1)

STAKEHOLDER MEETINGS / COMMENTS

Date	Commenter	Via	Comments
			4 of 4: Saipan South / Chamorro / Yes to more Economic Development - Shopping Mall / Tourism should be higher / Jobs Are Not Widely Available / No to subsistence Farming
			4 of 4: Priorities: Conserved(2),Lease By Developers(10),Residential Homesteads(1),Government Facilities(4),Farming Set-Aside(8),Agricultural Homesteads(8)
2/8/2018	Michael White	Email - Newspaper Survey	Saipan Central / Other / Yes to more Economic Development - Compatible with island culture and ecologically responsible / Tourism should be higher / Jobs Are Widely Available / No to subsistence Farming
			Priorities: Conserved(3),Lease By Developers(2),Residential Homesteads(6),Government Facilities(5),Farming Set-Aside(4),Agricultural Homesteads(7), "Made available for use by the Public" (1)
			"We need a centrally located Public Swimming Pool"
2/8/2018	David	Email - Newspaper Survey	Saipan Central / Chamorro/Carolinian / Yes to more Economic Development - Eco-friendly attractions for residents and visitors / Tourism should be higher / Jobs Are Not Widely Available (See additional comment) / Yes to subsistence Farming
			Priorities: Conserved(1),Lease By Developers(4),Residential Homesteads(6),Government Facilities(5),Farming Set-Aside(2),Agricultural Homesteads(3)
			"Most of the jobs in the tourism areas are taken by CW which directly cater to their own visiting clients."
			"Develop into eco-friendly parks, and charge visitor (residents/tourists).

STAKEHOLDER MEETINGS / COMMENTS

Date	Commenter	Via	Comments
2/11/2018	Suzy Kindel	Emails / Newspaper Survey	"I feel very strongly about preserving the National Historic Landmark from ANY development. The boundaries need to be made official. No power to the area should be allowed as this is Saipan's very special "park" and WWII monument. There should be NO billboards, no ziplines, no homes, no airplane/glider usage. In the past year or so the area has become overrun by Chinese tourists and mustangs to the point that I will no longer run out there which was my favorite recreational activity and location. But I feel it is no longer safe. Additionally we used to go out to Banzai to stargaze but again the area is overrun by noisy tourists and alot of traffic. So to add any development to the area would only make the situation worse. To me, Marpi is one of Saipan's top tourist attractions. The rules and regulations of the Federal Government regarding NHLs should be followed. Ideally, the NHL should be turned into a National park extension of AMP. And AMP should NOT be turned back to the local government.
			Saipan Central / Other / (Yes) to more Economic Development - Eco-tourism / Tourism should be higher / Jobs Are Widely Available / Yes to subsistence Farming
			Priorities: Conserved(1),Lease By Developers(4),Residential Homesteads(5),Government Facilities(2),Farming Set-Aside(3),Agricultural Homesteads(6)
			No development should occur in Marpi north of the 50 pool and especially NOT in the National Historical Landmark. The NHL should be protected at all costs. Traffic in that area should be controlled. Paupau beach should not be developed and should not become the beach for a hotel above it. Its hould stay as it is, no power boats alllowed, no concessions. This is the only beach in the north that is easily available to the local population. Wing Beach should also not be developed including the surrounding area. The 50 meter pool should be kept in place as a public facility until such time as a new pool is built.
			(Regarding 50 meter Kan Pacific/Marpi pool) "This pool is on public land and has been operated by kan Pacific for over 30 years as part of their land lease. Sadly that lease comes to an end in a few months. This community needs that pool to remain open until such time as a new pool or aquatic center is built. There are no satisfactory substitute pools that can be used for swim team and Master workouts."

STAKEHOLDER MEETINGS / COMMENTS

Date	Commenter	Via	Comments
2/14/2018	No Name	via DPL email - Newspaper Survey	Saipan Central / Chamorro/Carolinian/Other / Yes to more Economic Development - "Creation to be open on Friday to Sunday for the people" / Tourism should NOT be higher / Jobs Are NOT Widely Available / No to subsistence Farming
			Priorities: Residential Homesteads(2),Government Facilities(1),Agricultural Homesteads(3)
			"To have a permanent place for July libriation, Taste of Marianas & other activities. To relocate all Govt agencies into one place only. Renting private place is hurting our economies."
2/18/2018	Tina Sablan	Email - (Newspaper Survey)	Priority Uses: 1-Public Purposes (Educational Institutions, Parks, Healthcare facilities, government facilities, recreational centers, cultural centers, infrastructure, etc.). 2-Conservation (environmentally sensitive areas, habitat areas, watersheds, wetlands, coastal zones, mitigation bank, historically/culturally significant site, etc.). 3-Agricultural production (farmland and agricultural homesteads). 4-Energy production (renewable energy). 5-Residential hoestead (with subpriorities: 5a.Infrastructure for existing homesteads, 5b.Reissuance of abandoned homestead lots, 5c.Identification of areas sutiable for new homestead on Tinian and Rota). 6-Commercial land leases/revenue generation
			"The previous land use plan listed public purpose and homestading as th ehighest priorities for public lands, and commercial leases as th elowest - but our government has unfortunately always ignored that part of the plan and reversed these priorities."
			Saipan/Chamorro/Need more carefully planned development. (locally owned small businesses, promote and support agricultural production, invest more in our health care system and our water, wastewater, and energy infrastructure, especially renewable energy...develop infrastructure before issuing new residential homestead lots.)
			"We do not need more development aimed at mass-market tourism or large scale foreign investment…casino development..1 million tourists…grandiose, billion-dollar projects that will further strain our infrastructure."
			"…do not believe that we need more tourist arrivals. …should develop and protect the quality of our tourism product (our islands' beauty, history, attractions, recreational activities, culture, etc), and aim for higher-end tourists."

STAKEHOLDER MEETINGS / COMMENTS

Date	Commenter	Via	Comments
			Jobs are available but need to focus on developing local workforce to fill those jobs. Identify present and future land needs of educational institutions such as PSS, NMC and NMTI.
			Yes to subsistence farming. Also commercial farming to include hydroponics, aquaponics, organic farming, ranching, etc., as well as facilities for value added agricultural products.
			Plan should include public land inventory for all islands. Online availablility of this information.
			Plan should include consideration for rehabilitation and development of vacant and abandoned government properties, as well as vacant and abandonded homestead lots that have not been privatized.
			Current homestead program is unsustainable. Plan should propose reforms including 1-a moratorium on the issuance of new homestead lots until infrastrucutre is developed, 2-reinstate a priority system for awarding homesteads with priority for individuals without land..., 3-award only long-term leases of residential homesteads rather than conversion to fee-simple interest.
			Marpi should be reserved for environmental and historic conservation, low-impact cultural and recreational activities, and limited agriculture (where suitable).
			The Northern Islands should be reserved for consdervation, eco-tourism, and limited agricultural leasing (no freehold awards) on Pagan.
			Suitable lands should be identified for solar and wind farms. OIA has funded studies in the past that may be helpful. CUC should also be able to provide information based on its integrated resource plan and past RFPs for solar farms.

STAKEHOLDER MEETINGS / COMMENTS

Date	Commenter	Via	Comments
2/21/2018	No Name	via DPL email - Newspaper Survey	Saipan South / Chamorro/Carolinian / No to more Economic Development / Tourism should NOT be higher / Jobs Are Widely Available / Yes to subsistence Farming
			Priorities: Residential Homesteads
			No specific comments added.
2/13/2018	Jack Muna	Mail / Newspaper Survey	Saipan South / Chamorro/Carolinian / No to more Economic Development / Tourism should be higher / Jobs Are Widely Available / Yes to subsistence Farming
			Priorities: Conserved(4),Lease By Developers(-),Residential Homesteads(1),Government Facilities(5),Farming Set-Aside(3),Agricultural Homesteads(2)
			No General Comments
2/9/2018	No Name	(NMC-Delivered) / Newspaper Survey	Saipan Central / Other / No to more Economic Development
			Priorities: Conserved(no other selection)
			"Land development is already unsustainable. We have poorly managed development that results in an over burdened infrastructure, pollution of the land and sea & loss of ecosystem functioning. We have critically endangered species such as the nightingale Reed Warbler which are dangerously close to extinction. Furthermore, there are countless deralict & abandoned properties & lots on Saipan. Why build more instead of improving our island & saving land for the ecosystems on which we depend? Our reefs & fisheries are becoming damaged beyond repair from unsustainable tourism & development. Once they are gone, tourism will crash & our livelihoods will be greatly affected. Uncontrollled development is a terrible idea for Saipan for these reasons and more!"

STAKEHOLDER MEETINGS / COMMENTS

Date	Commenter	Via	Comments
2/9/2018	No Name	(NMC-Delivered) / Newspaper Survey	Saipan North / Chamorro/Carolinian / "Quality Tourists not Quantity" / Tourism should NOT be higher / "Many foreign owned employers prefer to hire foreign employees" / Yes to subsistence Farming
			Priorities: Conserved(1),Lease By Developers(-),Residential Homesteads(4),Government Facilities(-),Farming Set-Aside(2),Agricultural Homesteads(3)
			"The North Beach side of Saipan (from Paupau Beach north) should not be developed. The community needs green space and open beaches to rest and relax. Saipan does not need the world's biggest water park or shopping mall. Our islands are small; large, gigantic development(s) does not go well on small islnads. Money is not everything; quality of life is more important."
2/9/2018	No Name	(NMC-Delivered) / Newspaper Survey	Saipan North / Other / Yes to more Economic Development - Mixed / Tourism should NOT be higher / Jobs Are NOT Widely Available / Yes to subsistence Farming
			Priorities: Conserved(1),Lease By Developers(5),Residential Homesteads(2),Government Facilities(6),Farming Set-Aside(4),Agricultural Homesteads(3)
			No General Comments
2/9/2018	No Name	(NMC-Delivered) / Newspaper Survey	Saipan North / Other / Yes to more Economic Development - Production / Tourism should NOT be higher / Jobs Are NOT Widely Available / No to subsistence Farming
			Priorities: Conserved(5),Lease By Developers(4),Residential Homesteads(3),Government Facilities(6),Farming Set-Aside(1),Agricultural Homesteads(2)
			No General Comments
2/9/2018	No Name	(NMC-Delivered) / Newspaper Survey	Saipan South / Other / Yes to more Economic Development - Tourism Related / Tourism should be higher / Jobs Are Widely Available / Yes to subsistence Farming
			Priorities: Conserved(6),Lease By Developers(2),Residential Homesteads(5),Government Facilities(4),Farming Set-Aside(3),Agricultural Homesteads(1)
			No General Comments

STAKEHOLDER MEETINGS / COMMENTS

Date	Commenter	Via	Comments
2/9/2018	No Name	(NMC-Delivered) / Newspaper Survey	Saipan South / Other / Yes to more Economic Development - Retail/Restaurants / Jobs Are NOT Widely Available / Yes to subsistence Farming
			Priorities: Conserved(1),Lease By Developers(-),Residential Homesteads(2),Government Facilities(5),Farming Set-Aside(4),Agricultural Homesteads(3)
			No General Comments
2/8/2018	No Name	Delivered Early AM with Newspaper	Saipan North / Chamorro/Carolinian / No to more Economic Development / Tourism should be higher / Jobs Are NOT Widely Available / Yes to subsistence Farming
			Priorities: Conserved(-),Lease By Developers(-),Residential Homesteads(1),Government Facilities(-),Farming Set-Aside(2),Agricultural Homesteads(3)
			No General Comments
2/8/2018	NMPASI (fax ref)	Faxed - Newspaper Survey	Saipan Central / Other / Yes to more Economic Development - see comment* / Tourism should NOT be higher / Jobs Are NOT Widely Available / Yes to subsistence Farming
			Priorities: Conserved(3),Lease By Developers(6),Residential Homesteads(4),Government Facilities(5),Farming Set-Aside(2),Agricultural Homesteads(1)
			* "A transition program to assist governement employees resign and develop, create, engage in private businesses thereby reducing government employment and encouraging economic development."
3/7/2018	No Name	via DPL email - Newspaper Survey	Saipan Central / Chamorr/Carolinian / Yes to more Economic Development - Educational Facility Job Trainings / Tourism should NOT be higher / Jobs Are Widely Available / Yes to subsistence Farming
			Priorities: Conserved(2),Lease By Developers(3),Residential Homesteads(1),Government Facilities(2),Farming Set-Aside(1),Agricultural Homesteads(1)
			"Screen homestead applicants and already given lots, if they are not interested to build their houses then by all means give it to people on the waiting list that are interested"

Stakeholder Meetings/Comments

Date	Stakeholder	Representative	Summary of Discussion
5/1/18	Northern Islands Mayor's Office	Mayor Vicente Santos, Valentino Taisacan, Ramona Rebuenog	1. Mayor indicated that Pagan is intended to be the "capital" of the Northern Islands. 2. There are plans that involve a potential investor to develop the airstrip and harbor. The investor's plan will be shared with the PEGS Team by the NIMO. NIMO agrees with the investor's plan. 3. Ecotourism is preferred by the NIMO. Resorts and other concrete structures are discouraged. NIMO envisions bungalow-type or similar small structures that blend well with the natural environment/surroundings. 4. NIMO plans to repopulate the northern islands. The NIMO is currently scheduling some families to return to the Northern Islands in Mid-June 2018. a. ~10 families in Agrihan b. ~20 families in Alamagan c. ~10 families in Anatahan d. ~12 families in Pagan NIMO estimates 2 parents and 1 child per family. NIMO also mentioned that the mothers and children will most likely return to Saipan for the regular school year in the short term. It is the NIMO intent to temporarily locate these families within the NIMO's "compounds" on the respective islands. 5. The NIMO proposes to have additional infrastructure in their compounds to include school, health center, typhoon shelter, lodging, and other structures as necessary. NIMO estimates that roughly 20,000 square meters will be sufficient for his proposed plan within the next 5 to 10 years. 6. NIMO indicated that the Pagan compound may need to be relocated in the future if the airstrip is developed.

Date	Stakeholder	Representative	Summary of Discussion
5/1/18	Saipan Zoning Office	Administrator Therese Ogumoro, Marciana Igitol	1. Zoning mentioned that there will be an update to the Saipan Zoning Map around September to December 2018. 2. Zoning mentioned that the rezoning process is being coordinated and discussed with the Office of Planning and Development (OPD). 3. The PEGS Team informed Zoning of the proposed uses for the public lands south of the 4. Zoning gave a brief description of the rezoning process, which would involve public hearings, board sanctioning, and legislative review. The PEGS team requested if Zoning could provide an outline of the procedures required for the rezoning process. PEGS mentioned that a formal request letter would br submitted following the meeting. 5. Mr. Charles Jordan, OPD Consultant, provided comments on ATVs on Saipan. It was recommended that ATV uses be located away from general public roads and a moratorium be issued on all ATVs or other off-road vehicle use on public roads. It was also recommended that ATV uses be proposed only on private property or have a designated public land area for ATV uses. 6. Free Trade Zones were briefly discussed. It was discussed that it could be designated on either public or private land and should be located near the airport or seaport. 7. It was noted in the meeting that the first draft of the Public Land Use Plan focused more on homesteads rather than private development on public lands.
5/2/18	BECQ	Eli Cabrera, Janice Castro	1. Bombs, UXOs, etc. on should be considered. Mr. Eli Cabrera mentioned that there used to be a map of the war time, which indicated structures including ammo storage facilities. 2. BECQ recommended that the plan indicate the Wetland Evaluation Study as a possible reference for future

Date	Stakeholder	Representative	Summary of Discussion
			updates of the Public Land Use Plan. The Wetland Evaluation Study is currently in the works, but it will not be completed by this project's deadline. 3. Ms. Janice Castro mentioned that DCRM will revisit the GIS Map Book in case there have been any updates on their side. 4. Employment demand constantly changes, and it was recommended that the reference date of citation should be identified. 5. Conservation of resources should be considered. 6. BECQ recommended that the PEGS Team consider the existing sewer system at Managaha as an example for the Northern Islands. 7. Agricultural homesteads should be located away from water sources.
5/2/18	MVA	Chris Concepcion	1. MVA is considering relocating to Garapan. Mr. Concepcion mentioned that options include potentially sharing office space with the Carolinian's Affairs Office. Another option is to have a separate building adjacent to the Carolinian's Affairs Office. 2. Mr. Concepcion mentioned that MVA prefers a gradual/paced growth (hotel development) that will eventually plateau.
5/3/18	DLNR	Tony Benavente, Gus Kaipat	1. DLNR interested in conservation areas. DLNR recommended to maintain existing terrain as much as possible and reserve lands that could be decided by future generations.
5/4/18	DPW	James Ada, Tony Camacho, Henry Bautista	1. DPW mentioned that a Highway Master Plan will be initiated by next year. The planning horizon will probably 10 years. There is no anticipated change of existing roads. 2. DPW mentioned that they have no comments on the current draft as of the date of the meeting. However, they mentioned that their comments, if any, would be concentrated within the proposed homesteads.

Date	Stakeholder	Representative	Summary of Discussion
			3. DPW recommended that the Public Land Use Plan consider Public Law 20-52 regarding rules and regulations within the Rights of Way. 4. DPW mentioned that they already have plans in place for the future expansion of the Landfill. In any case, Enrique Delacruz was provided as a point of contact for the Solid Waste Management Division. 5. DPW mentioned that DPL should have the information regarding quarry sites.
5/4/18	CPA	Ed Mendiola	1. CPA mentioned that there are water wells located at the airport. 2. CPA mentioned that they still desire the 3 additional lots at the Saipan Seaport Area across street (Lot 117 D 06/117 D 07/ 117 D 08). 3. CPA mentioned that there are plans to have a fuel pipeline from the Tinian seaport to the airport by the DOD. 4. CPA mentioned that several companies were interested in solar farms by the Saipan airport. 5. Sufficient CPA land is available for Rota Airport and West Harbor expansion, if any. 6. Pagan Port Master Plan was provided to the PEGS Team.
5/7/18	Rota Mayor's Office	Anthony Barcinas David Santos	1. It was recommended to relocated the Dugi homesteaders to "Rota Resort" area. 2. It was recommended that the Public Land Use Plan propose recreational uses in Sinapalo and other future residential areas. 3. Rota Mayor's Office is in the initial planning stages to develop a 20-year master plan for Rota. 4. Mr. Anthony Barcinas will coordinate with CUC Rota to obtain the waterline drawings and master plan for Rota.
5/8/18	CUC Rota	Charles Manglona, Jimmy Atalig	1. CUC provided a copy of the waterline drawings and CUC Rota Master Plan for Rota to the PEGS Team. 2. CUC Rota mentioned that there are plans to have the electrical lines be

Date	Stakeholder	Representative	Summary of Discussion
			underground following existing roadways. 3. CUC Rota has plans to relocate the power plant to the upper NMC Rota area. The proposed area is 10 hectares. 4. CUC Rota proposed to have a solar farm by the existing water well just past the airport with a proposed area of 5 hectares. 5. CUC Rota would like a future fuel storage close by the port area. 6. CUC Rota is considering a future WWTP by Dugi area with a proposed area of 5 hectares. A WWTP similar to Rota Resort's WWTP is being considered. 7. A new 0.5 MG water tank is in the works near Finafa area.
5/8/18	Tinian Mayor's Office	Mayor Joey San Nicolas, Allen Perez, Senator Jude Hofschneider, Alexis Hofschneider-Kwon	1. Tinian Mayor's Office mentioned that they are still waiting for the Opinion on the certified question regarding the FTZ. 2. Senator Hofschneider mentioned that the PEGS Team look into the following public laws: 19-85, 17-12, 17-18, and 17-38. 3. It was recommended that all cliff line areas be maintained as public land. 4. It was mentioned that a modular sewage treatment plant is in discussion with CUC. Senator Hofschneider recommended that the PEGS Team check the centralized IWDS for the NMHC housing on Tinian as an example for future homestead development on Tinian.
5/8/18	Tinian Cattlemen's Association	See attendance sheet	1. Tinian Cattlemen's Association (TCA) recommended that surplus public lands be designated for grazing, farming, or other agricultural uses. 2. TCA indicated that there are about 1200 cattle on Tinian using about 1100 hectares. TCA is currently using the military-leased land (~60%) for cattle. 3. There is a 2013 cattle survey prepared by Mr. Lawerence Duponcheel. 4. TCA expressed their concern that there is no water rate for farming. TCA

Date	Stakeholder	Representative	Summary of Discussion
			mentioned that there used to a non-chlorinated well nearby farming are that was dedicated for farming purposed. 5. TCA requested for surplus land to be temporarily used as grazing or agricultural area until military land frees up or the land is issued as homestead or other purposes. 6. TCA requested that recommendations be made regarding the adjustment of lease rates to promote farming. 7. Pina/Kastiyu area was recommended to be looked at as a potential area for agricultural, grazing, farming, etc.
5/9//18	Saipan Chamber of Commerce	See attendance sheet	1. Saipan Chamber of Commerce (SCOC) concerns include CW extension, hotel on public land lease extension policies (Hyatt), flight stoppages of service (United and Delta), and utilities public land lease extension policies (ITE). 2. SCOC mentioned that the Northern Marianas Descent Corp. is interested in proceeds and involvement in process of leasing public lands. 3. SCOC expressed their concerns on the lease extension policies for hotels on public land. It was discussed that investment requires certainty of longevity. 4. SCOC feels that if there should be additional development, it should be focused more on housing rather than hotels. 5. SCOC feels that there should be a moratorium on hotel development on public lands. It was discussed that there are sufficient private lands to develop hotels. 6. It was recommended to determine the applicability of the lighted property law to the public land use plan.
5/9/18	Mayor of Tinian Chief of Staff	Allen Perez	1. Mr. Perez recommended that nature trails be considered and included In the Public Land Use Plan. 2. Mr. Perez mentioned that the Tinian Mayor's Office is looking to rebrand

Date	Stakeholder	Representative	Summary of Discussion
			themselves and begin to move away from big resorts. 3. Mr. Perez mentioned that an ideal location for a new civic center would be in San Jose or the upper area. 4. Mr. Perez mentioned that there are no funds in the near future for a sewage treatment plant. However, land has already been designated for a transfer station. 5. Mr. Perez mentioned that Aguiguan should have its own GIS map. He also mentioned that there are plans to limit the goats to one side of the island by fence to protect the endangered birds. Also, there have been previous discussions regarding ecotourism on Aguiguan for hunting.
5/10/18	House Hearing	See attendance sheet	The following were issues/comments/concerns brought up after the presentation to the House members: 1. Parking in Garapan area is an issue 2. Suitable lands are needed for homesteads 3. Consider townhomes as a homestead option 4. Look into the impacts of watershed area at Kagman 5. Consider policy recommendations for land exchange, leases, etc. 6. Consider a park at Susupe lake 7. Look for alternatives to fee simple homesteads 8. Consider the airstrip on Pagan in relation to Northern Islands development 9. Reserve lands for future schools, parks, and landfill expansion 10. Look into potential relocation of schools out of tsunami zones
5/10/18	Senate Hearing	See attendance sheet	The following were issues/comments/concerns brought up after the presentation to the Senate members: 1. Consult OPD and DHS 2. Consider the discussions on the proposed military buildup on Pagan

Date	Stakeholder	Representative	Summary of Discussion
			3. Include policy recommendations regarding homesteads 4. There are existing homesteads without infrastructure
5/11/18	Lt. Governor	See attendance sheet	Rota: 1) Relocation of Dugi homesteaders to another homestead site, such as Finafa 2) Relocation of power plant away from tsunami zone 3) Identify a FTZ with areas set aside for either tourism-related and/or industrial uses. These different uses of FTZ need to be separated. DPL reminded that the certified question regarding the FTZ is still pending.
5/11/18	HANMI	See attendance sheet	1. HANMI mentioned that hotels need to be able to compete with newer or better infrastructure/etc, but it is difficult due to the expiring public land leases. HANMI requested that policy recommendations on public land lease extensions be considered. 2. HANMI discussed that the RFPs for hotels/existing leaseholders need to be defined. Also, they requested that consideration/advantages be considered for existing leaseholder.

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CNMI Comprehensive Public Land Use Plan Update
Update to the Legislature
January 25, 2019
Time: 10 AM

Project Name:	**CNMI Comprehensive Public Land Use Plan Update**
Project Owner:	**Department of Public Lands**
Venue:	**CNMI House of Representatives' Chamber**

Participants:

Representative Blas Jonathan Attao, Speaker
Representative Lorenzo Deleon Guerrero, Vice Speaker
Representative John Paul Sablan, Floor Leader
Representative Roman Benavente
Representative Richard Lizama
Representative Joseph Flores
Representative Ralph Yumul
Representative Christina Marie Sablan
Representative Edwin Propst
Representative Jose Itibus
Representative Edmund Villagomez
Representative Ivan Blanco
Representative Donald Manglona
Representative Joel Camacho
Representative Luis John Castro
Marianne Concepcion-Teregeyo, DPL Secretary
Patricia Rasa, DPL
Roy Reyes, PE, PEGS
Denn Manglona, PEGS
Jordan Hart, CHP
Brett Davis, CHP

Notes and discussion:
Following the presentation of the latest updates to the CNMI Comprehensive Public Land Use Plan by Pacific Engineering Group and Services, LLC (dba SSFM CNMI) and their sub-consultant, Chris Hart & Partners, Inc., an open discussion was held to address any comments or questions from the CNMI House of Representatives.

The following are summarized discussions in relation to the CNMI Comprehensive Public Land Use Plan Update.

Question/ Comment Introduced by	Summary Description
Rep. Joel Camacho	How does this impact our current zoning laws? Is this a permanent land use plan for future use?
DPL Secretary	DPL and their consultants consulted with Zoning since the initial stages of the project. The project team has been in direct collaboration with Zoning, and they were provided with the drafts and corresponding updates of the CNMI Public Land Use Plan. Additionally, Zoning is a member of the Office of Planning and Development's Advisory Council, and they were present at the recent stakeholder meeting which included a similar presentation of the latest updates to the CNMI Public Land Use Plan. Note that the proposed designated sites of the Public Land Use Plan are in terms of "wish list" items by various agencies to meet their needs. Additionally, these proposed designated sites are not final since DPL's role is to designate and set aside land. However, DPL will go into further detail when it proposes to open up a new subdivision.
Rep. Ivan Blanco	Is anyone from your project team from the Office of Planning and Development?
DPL Secretary	The Secretary of DPL is automatically a member of the Office of Planning and Development's Advisory Council. The other members of the Advisory Council include the Zoning Administrator and other key stakeholders of the CNMI Public Land Use Plan.
Rep. Christina Sablan	Is there a process for formal adoption of this plan?
DPL Secretary	Once DPL performs the final vetting, DPL will officially do the adoption and inform the general public. We are currently at the final stage. Stakeholders and the public were involved throughout the entire process through public hearings and meetings. The plan will go through the Commonwealth Register, and there will be no need for any action by the legislature.
Rep. Lorenzo Deleon Guerrero	Were FUDS, ordnance, UXO, and Brownfield considered in the plan?
Roy Reyes, PEGS	Yes. In the process of putting the plan together, information on those sites were gathered to help determine locations that are not conducive to proposed uses.
Brett Davis, CHP	Myounghee Noh and Associates was the environmental sub-consultant for the project. They provided the environmental information, which were compiled on hazard maps that are part of the plan.
Rep. Roman Benavente	Did the plan make considerations for land exchange and conflicting/overlapping designations of Zoning or conservation areas of other agencies?

DPL Secretary	For Saipan, Obyan area has been identified as the preferred land exchange site. DPL can negotiate for land exchanges on different areas but according to the established procedures. DPL does not intend to conflict with the Zoning regulations and established conservation areas of regulatory agencies.
Rep. Christina Sablan	Can you elaborate on the homesteads identified on Saipan? Did any of the homestead areas include the abandoned, blighted lots that are owned by the government, particularly around the Capitol Hill area? Given the limited land availability, what is the future of the homestead program?
Brett Davis, CHP	The future land use maps show the homestead areas that were identified with DPL and the general public. The homestead areas identified on the Plan are all on vacant, undeveloped public land.
DPL Secretary	In regards to the future of the homestead program, DPL will need the support from the legislature. DPL may start considering leases as a homestead option, but DPL may need the legislature's help to provide that program. Other alternatives that have been discussed throughout this plan update to extend the homestead program include mutli-family homes or complexes. However, DPL does not fund infrastructure.
Rep. Lorenzo Deleon Guerrero	There are some blighted government property in Tanapag and Lower Base on Saipan. Paupau Hotel is a blighted government property on Rota.
DPL Secretary	DPL has issued RFPs for those sites on multiple occasions without success. DPL has also offered blighted government property to other agencies, but there are concerns such as structural integrity that hinder these efforts. Other government properties that may look abandoned, including the old garment factory in Lower Base, actually have leases in place or are in process to be transferred to other government agencies.
Rep. John Paul Sablan	Will the homestead areas identified on the Plan be sufficient to award to the pending applicants?
DPL Secretary	There is limited amount of land available. Currently, DPL is looking to reduce the minimum lot size of homestead subdivisions to increase the number of homestead lots. DPL has also been looking for scattered lots that are nearby existing infrastructure that could possibly be issued for homesteads.
Rep. Roman Benavente	Can you elaborate on the proposed As Gonno Homestead?
DPL Secretary	The proposed As Gonno Homestead has been in the works over the last 5 years. In 2017, DPL commissioned a redesign of the homestead subdivision to increase the number of lots by reducing the area per lot to approximately 550 square meters. These lots are located nearby existing infrastructure including sewer and waterlines. The current setback is that there are reed warblers on the proposed subdivision. Government credits in relation to the Mitigation Bank may need to be consumed.
Rep. Roman Benavente	Do you have any information on the previously proposed school in the Marpi area?
DPL Secretary	The proposal for the new high school is still pending. The former

	Commissioner of Education (Ms. Deleon Guerrero) previously indicated to DPL that there was no need for the school at the time due to decreasing student population. DPL is able to set aside the land, but it is up to PSS to make it materialize.
Rep. Donald Manglona	Was an area identified for a potential new landfill on Rota?
Brett Davis, CHP	The future land use map for Rota did not identify a new landfill location.
Denn Manglona, PEGS	There have been pre-planning discussions between the Rota Mayor's Office and CIP regarding upgrades to the existing landfill on Rota to bring it into compliance with NEPA.
Rep. Ivan Blanco	Are there water reservoirs identified in the Plan?
Roy Reyes, PEGS	Additional water reservoirs were not identified. On previous coordination and consultations with CUC, the need for additional water reservoirs was not brought up. Additionally, the planning horizon of this Plan is 5 – 10 years, and the Plan is also required to be updated every 5 years.
Rep. Lorenzo Deleon Guerrero	Please include the proposed 7 million gallon reservoir in Kagman, which is a part of the federal watershed project. More information on this may be obtained from the National Resources Conservation Service.
Rep. Luis John Castro	Did the Plan consider any designations for a cultural center or similar use on Saipan?
Brett Davis, CHP	The future land use map for Saipan did not identify any new properties for historical or cultural preservation. However, there is a reference map in the GIS map book of the Plan that identifies all known historic/cultural sites. It is understood that all these identified sites shall be conserved and maintained.
DPL Secretary	DPL is also working with the CNMI Indigenous Affairs Office, and DPL is preparing to transfer three cultural sites in Kagman.
Rep. Donald Manglona	Was a fuel farm identified on Rota?
Denn Manglona, PEGs	The project team has met with CPA, but they did not identify any particular plans in relation to a fuel farm within the vicinity of the airport.

This meeting was adjourned around 11:30 A.M.

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CNMI Comprehensive Public Land Use Plan Update
Update to the Legislature
January 25, 2019
Time: 1:30 PM

Project Name:	**CNMI Comprehensive Public Land Use Plan Update**
Project Owner:	**Department of Public Lands**
Venue:	**CNMI Senate Chambers**

Participants:
Senator Victor Hocog
Senator Jude Hofschneider
Senator Francisco Cruz
Senator Vinson Sablan
Roy Reyes, PE, PEGS
Denn Manglona, PEGS
Jordan Hart, CHP
Brett Davis, CHP

Notes and discussion:
Following the presentation of the latest updates to the CNMI Comprehensive Public Land Use Plan by Pacific Engineering Group and Services, LLC (dba SSFM CNMI) and their sub-consultant, Chris Hart & Partners, Inc., an open discussion was held to address any comments or questions from the CNMI Senate.

The following are summarized discussions in relation to the CNMI Comprehensive Public Land Use Plan Update.

Question/ Comment Introduced by	Summary Description
Senator Sablan	How has the recent or concurrent changes in Zoning on Saipan affected the development of the Plan?
Jordan Hart, CHP	The project team has tried to be consistent with PL 15-2. The Plan aims to be consistent with any existing plans, including Zoning and other agencies' long range plans. The Plan has considered Zoning designations. There is a layer on the GIS maps that contain the Zoning designations, which affect the proposed future land uses. On other islands without Zoning, a situation arises in which the Plan may be a potential driving force. Some of the community concerns include whether this

	Public Land Use Plan could plan their island for them. With this concern, the Plan will include a recommendation for the completion of an overall sustainable development plan along with zoning on other islands to comprehensively guide the designation of land uses.
Senator Cruz	With a lack of development at this time on Tinian, is it necessary to establish zoning based on the Plan?
Jordan Hart, CHP	Zoning may not be necessary for economic development. However, in anticipation of a time when economic development happens, a zoning plan will ensure that the growth pressure will happen where you would like to see it happen. This also allows for the planning of infrastructure to be in place when the development happens. Without zoning, there may be conflicts in land uses.
Senator Cruz	What feasible developments were considered for Aguiguan in the Plan?
Brett Davis, CHP	In public hearings and meetings, the community indicated a desire to look at the possibility of hunting and eco-tourism. There are no homesteads or infrastructure proposed for Aguiguan within the planning horizon of this Plan.
Senator Hocog	In the absence of zoning, will it be a good direction for Tinian and Rota to operate based on the adopted Plan until zoning is established?
Jordan Hart, CHP	With the way it is organized now, the Public Land Use Plan can move forward although there is no zoning established on Rota and Tinian. This Plan designates where facilities, homesteads, resource reservations, etc. can happen in regards to public lands only. Additionally, if a centralized GIS system is developed under the Office of Planning and Development that all agencies could contribute and use, similar types of planning will be much more efficient.
Senator Hocog	Are there any conflicts of the land designations of the Plan with existing proposed developments on public land?
Jordan Hart, CHP	As far as the project team is aware, the Plan does not have any conflicts with existing proposed development on public land. For Saipan, the Plan has considered guidance from Zoning. For Tinian and Rota, existing uses of surrounding properties were considered to ensure that the proposed use of public lands will not conflict or contradict.
Senator Hocog	Did the Plan consider setting aside public land strictly for industrial use or economic development?
Jordan Hart, CHP	There were some lands designated for industrial and commercial-type development on Saipan within the 5-10 year planning horizon of this Plan. However, general public feedback from public hearings and conversations indicated that there is a sufficient amount of privately owned land that could be developed for commercial-type uses. Therefore, some pressure could be taken off public land for commercial development, and private land owners could potentially benefit from leases or redevelopment of property.
Senator Hocog	Please elaborate on the Free Trade Zones considered in the Plan.
Jordan Hart, CHP	Free Trade Zones were given significant considerations in the Plan, and these were discussed in public hearings and meetings with agencies and stakeholders. There was a Supreme Court opinion that was provided recently, and it has been discussed with DPL. However, this matter will be discussed further and will be addressed in the Plan.
Senator	Do you heavily recommend the implementation of zoning on other islands

Hofschneider	notwithstanding the current agencies that have been tasked to oversee development?
Jordan Hart, CHP	Each of the island communities is unique. The general message that the project team heard from Tinian was the desire for economic development. On Rota, the community would like economic development that is controlled and consistent with the setting of the community. However, zoning can function as another layer of issues to address for economic development. In the immediate future, this may pose a challenge to the other islands including Rota and Tinian. With little development on the other islands at this time, the implementation of zoning will provide an opportunity to direct the future development in the long term. Without regulation, development can happen anywhere.
Senator Hofschneider	Is there any recommendation on the Plan for the administration or government to address blighted properties on privately owned land including homestead lots that were previously public land?
Jordan Hart, CHP	The latest draft of the Plan does not specifically address this matter. With recent similar discussions on blighted properties, a section will be added to the final version of the Plan that will touch on this issue and provide some recommendations.
Senator Sablan	Did the Plan recognize Right-of-Way issues and land exchange?
Jordan Hart, CHP	The latest draft of the Plan identifies areas for potential land exchange on all of the islands, except for Saipan. The project team is working with DPL to finalize the recommendations for the preferred areas for land exchange on Saipan
Senator Sablan	Does the Plan include recommendations for the locations of future roads, etc.?
Jordan Hart, CHP	The Tinian maps include a call out for a major roadway. With a planning horizon of 5 to 10 years, the Plan aims to make recommendations that are feasible to happen within that timeframe. The Plan tries to be conscious about the future by not recommending uses that would interfere with potential traffic corridors, but the Plan is also not trying to plan all future traffic corridors in this update.
Senator Hocog	Were wetlands considered in the Plan?
Jordan Hart, CHP	Wetland areas have been identified on the GIS Map Book of the report.
Senator Hofschneider	What are the next steps for the Plan?
Jordan Hart, CHP	There will be an Open House at DPL's conference room on January 29, 2019 to solicit final stakeholder input and comments from the public. The final Plan will be developed after considerations of the comments on the latest draft, and it will be delivered to DPL for review and adoption. Please note that the CNMI Comprehensive Public Land Use Plan is meant to be updated every 5 years.

This meeting was adjourned around 2:30 P.M.