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## GIS MAPS

See GIS Map Book



## I. EXECUTIVE SUMMARY

Insert summary here following completion of Rota, Saipan and Tinian sections

## II. ACKNOWLEDGEMENTS

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Office of the Governor, Commonwealth of the Northern Mariana Islands  
Twentieth Northern Marianas Commonwealth Legislature Senate  
Twentieth 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 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)  
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Office of Indigenous Affairs  
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Tinian Mayor's Office  
Rota Mayor's Office  
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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 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. 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)





## 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 be 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-2
  
- Tinian including Aguigan  
See Figure Nos. T-1 and T-2
  
- 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

<b>SAIPAN</b>	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

<b>TINIAN</b>	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

<b>ROTA</b>	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

<b>Northern Islands</b>	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 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 Future land Map 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, Aguijan, Rota, Anatahan, Agrihan, Pagan and Alamagan. The remaining islands 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.

DRAFT



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## 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.<sup>1</sup> 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.<sup>2</sup> 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.

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<sup>1</sup> This chapter was completed in January 2018, before any resolution of the CW-1 visa issue.

<sup>2</sup> 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 #: Homestead Awards as of 2017 Versus Estimated 2028 “Eligible NMD”**

	<u>Saipan</u>	<u>Tinian</u>	<u>Rota</u>	<u>Total</u>
<b>TOTAL Homesteads Awarded by 2017:</b>	<b>1,997</b>	<b>912</b>	<b>2,597</b>	<b>5,506</b>
Eligible NMD Applicants by 2028 (Scenario A)	5,038	409	421	5,869
Eligible NMD Applicants by 2028 (Scenario B)	4,769	366	368	5,503
Eligible 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 intercensal 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. FUTURE CONDITIONS**

### **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 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 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, *Population Forecasts for Master Planning* identified 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 lease holders of major properties have been delaying investment in repairs and renovations, contributing to possible perceptions of deteriorating hotel inventory in Saipan.

#### **4. OVERVIEW**

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. As of the drafting of this Plan, suitable public lands are in limited supply.

#### **5. PUBLIC LAND USE REQUIREMENTS**

The island of Saipan is the only island that has zoning in place. The future use of public lands including civic uses, village and agricultural homesteads and proposed 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.

#### **6. NUISANCE ACTIVITIES**

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. (See: Figure Nos. S-2 and S-3)





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.

## **7. OTHER PUBLIC FACILITIES AND COMMUNITY SERVICES**

Other 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 Typhoon.

## **8. CONSERVATION AREAS**

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)

## **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.

*Pending: Discussion & Analysis of DPL lands appropriate for lease to private developers on Saipan.*

## **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 public 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 ## hectares of land with a slope less than 10% suitable for development such as village homesteads or commercial uses. (See: Figure Nos. S-13.1, 13.2, 13.3)

## **11. HOMESTEADS**

In Saipan as of December 2017 the total deeded Agricultural homesteads were 400 lots and Village homesteads were 1,875. 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.



## 12. **FUTURE LAND USES**

For the island of Saipan, future public land uses include identification of village homestead sites, a potential site for a future wastewater facility, new school sites, potential locations for a north and south solar farm on public land, civic uses near Garapan, and a Kagman Wastewater treatment plan. (See: Figure Nos. S-14.1, 14.2, 14.3)

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 and conservation areas, vegetation and soil types. (See: Figure Nos. S-2 - S-12)



## VIII. PUBLIC LAND USE PLAN FOR TINIAN

### 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 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

### 2. 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.

### **3. 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 Agiugan (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 and used for various military exercises. 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.

### **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). A map showing the existing public lands of Tinian is provided in Figure No. T-1.

### **5. 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. (See: Figure No. T-8)



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## **6. OTHER PUBLIC FACILITIES AND COMMUNITY SERVICES**

Other 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)

## **7. HOMESTEADS**

In Tinian as of December 2017 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).

According to DPL 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 is approximately 627 hectares in size. (See: Figure T-8) The proposed village homestead development called Marpo Heights is anticipated to provide 427 village homestead lots. (See: Figure T-8) The available public land at these two sites is adequate to provide homestead lots to pending applicants for Tinian.

## **8. CULTURAL AND HISTORICAL PRESERVATION**

## **9. NATURAL RESOURCES**

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)



## 10. **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.

*Pending: Discussion & Analysis of DPL lands appropriate for lease to private developers on Tinian.*

## 11. **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 ## hectares of land with a slope less than 10% suitable for development such as village or agricultural homesteads, civic uses and infrastructure services. (See: Figure No. T-7)

## 12. **FUTURE LAND USES**

For the island of Tinian, future use of public lands proposed in this plan update including civic uses, roadway development, village and agricultural homesteads, future agricultural land, potential free trade zones, land for economic development and a future wastewater facility. New development is subject to the rules and regulations administered by the DPL and other agencies such as the Coastal Resources Management Office (CRM). (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. R-7) As noted 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 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. FUTURE CONDITIONS**

### **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 tourism development.

#### **4. 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.

#### **5. 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.

#### **6. NUISANCE ACTIVITIES**

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.)

#### **7. OTHER PUBLIC FACILITIES AND COMMUNITY SERVICES**

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.)

#### **8. HOMESTEADS**

In Rota as of December 2017 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 is approximately ### hectares in size. The DLP identified Finafa as a suitable homestead location in the 2017 Annual Report. (See: Figure R-7)

Two (2) areas have been designated for proposed village homestead development northwest and southeast of the Sinapalu village. The area to the northwest is approximately ### hectares in size, the southwest area is ## hectares in size. Combined these proposed locations total ### hectares. (See: Figure No. R-7)

## 9. CONSERVATION AREAS

The Island of Rota contains 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 is significant identified habitat areas. This Land Use Plan Update recommends maintaining and expanding conservation area where feasible. Critical Habitats and important ecological features are present on Rota and identified in Figure No. R-6.

## 10. COMMERCIAL USES

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

*Pending: Discussion & Analysis of DPL lands appropriate for lease to private developers on Tinian.*



## **11. 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 ## hectares of land with a slope less than 10% suitable for development such as village homesteads or commercial uses. (See: Figure No. R-6)

## **12. FUTURE LAND USES**

For the island of Rota, future public land uses include identification of agricultural and village homesteads, civic uses, potential solar farm sites, potential sites for power plant relocation and an area identified as possible exchange land. (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. 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.



### **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*. However the report did not analyze the Northern Islands due to the lack of population and economic activity.

### **4. 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.

### **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 forty (40) 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 in 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 ordnances 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. OTHER PUBLIC FACILITIES AND COMMUNITY SERVICES

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 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, 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 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. (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 a 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 forty (40) agricultural homestead lots in 2017. (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. CONSERVATION AREAS**

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.”<sup>3</sup> 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 and 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, and lodging for the Mayor’s staff and agricultural homesteaders.

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, 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

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<sup>3</sup> U.S. Department of the Navy. Preliminary Draft (Version 3) *Socioeconomic Impact Assessment Study in Support of 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>



include an emergency shelter, 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 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. ADMINISTRATION 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 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 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 projects 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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