

ADDENDUM TO THE GUAM AND CNMI MILITARY RELOCATION FINAL ENVIRONMENTAL IMPACT STATEMENT

The Department of the Navy (DoN) has prepared the following addendum for inclusion in the Final Environmental Impact Statement (EIS) to provide supplemental information and incorporate final language changes that occurred after document formatting, but prior to completion of document printing. Where inconsistencies occur between the contents of this addendum and other sections of the Final EIS, the contents of this addendum take precedence.

A.1 Plan to Transition to Use of Ultra Low Sulfur Fuel on Guam

As discussed in Volume 6, Chapter 7, Section 7.2, currently, Guam has a U.S. Environmental Protection Agency (USEPA) approved waiver from various Clean Air Act (CAA) requirements which allows the use of high sulfur fuels in its electric generation plants. (40 CFR 69.11-13). Likewise, in rulemaking USEPA has exempted Guam from CAA requirements mandating the use of Ultra Low Sulfur Diesel (ULSD) fuel for mobile sources, such as vehicles and construction equipment. (40 CFR 80.608). However, DoN believes that the use of lower sulfur fuels would reduce air emissions and improve public health. DoN is currently collaborating with relevant stakeholders in a working group to determine an appropriate strategy for implementing an island-wide switch to ULSD fuel. Due to underlying logistics and economics of the transition, an island-wide switch to ULSD fuel is the most effective way to provide the public health benefits.

The stakeholders working group, which is lead by USEPA and includes DoD, Guam Environmental Protection Agency (GEPA), Guam Power Authority (GPA), Guam legislative staff, and Commonwealth of the Northern Marianas Island (CNMI) representatives, is actively coordinating relative to the logistics, economics, and regulatory implementation issues associated with an island-wide ULSD fuel adoption on Guam. The group has contacted fuel suppliers, compiled data on potential fuel providers and refineries, and developed information on the cost differential associated switch to ULSD fuel. Based on the initial data, it has been determined that refineries in Asia would be able to provide ULSD fuel to Guam and the cost differential is within a reasonable range of cost per gallon compared to high sulfur diesel fuel used on the island. The stakeholders are focused on a target date of December 2012 for implementation of the ULSD fuel switch and are currently seeking to identify all the factors that must be addressed to make the change to ULSD fuel. The stakeholders are also in agreement that the move to lower sulfur fuel (500 parts per million [ppm]) as an interim step can be readily achieved before the December 2012 target date and active steps to implement the use of 500 ppm sulfur fuel is underway. DoN is currently using ULSD fuel in its newer, compliant vehicles and is committed to using ULSD fuel in all its operations and construction activities upon the implementation of the island-wide transition.

A.2 Reconditioning of Guam Power Authority Combustion Turbines

As discussed in Volume 6, Chapter 2, Section 2.1.4, under basic alternative 1 for power, which is also the Preferred Alternative, up to five existing Guam Power Authority (GPA) owned Combustion Turbines (CTs) would be reconditioned to provide the necessary reliability to serve as reserve capacity to the Island Wide Power System. These reconditioned CTs would serve as peaking and reserve units. All the CTs currently have the CAA Title V permit for the operation of the units. There is an ongoing DoD CT study to determine the specific repairs needed to recondition the CTs. Based on the study, if it is determined that Title V modifications (including PSD modifications for PSD sources) are required for one or more of the CTs, because these are GPA-owned units, Department of Defense (DoD) would engage GPA to facilitate the required consultation with GEPA and USEPA. These consultations would occur to ensure that any required modifications to any Title V permits are obtained prior to the commencement of the reconditioning activities.

A.3 Quantification of Particulate Matter and Mobile Sources Air Toxics

As discussed in Volume 6, Chapter 7 and Volume 9, Appendix I, DoD conducted an analysis of air quality impacts associated with construction for the proposed actions. Criteria pollutant emissions levels, including particulate matter less than or equal to 2.5 microns in diameter (PM_{2.5}) emissions attributable to the construction of Guam Road Network (GRN) projects are presented in Volume 6, Chapter 7, Tables 7.2-42, 7.2-47, 7.2-52, and 7.2-57. Criteria pollutant emissions levels, including PM_{2.5} emissions attributable to facilities construction are presented in Volume 2, Chapter 5, Tables 5.2-1 (Training Facilities) and 5.2-2 (Main Cantonment).

The DoD also conducted a Mobile Source Air Toxics (MSAT) analyses that focused on levels of seven major air toxic compounds associated with truck traffic during roadways and facilities construction at eight sites on Guam. The MSAT analysis included a quantitative analysis for the toxic organic compounds and a qualitative analysis for diesel PM.

Subsequent to the analysis, additional information has come to light that requires further clarification of PM_{2.5} emissions levels presented in the above-mentioned tables and of the discussion of MSAT and PM_{2.5} emissions in the Final EIS.

First, as Guam currently has approved USEPA waivers/exemptions from various CAA requirements which allow the use of high sulfur fuels on island, the criteria pollutant and MSAT analyses assumed the use of diesel fuel with a sulfur content of 5,000 parts per million (ppm). Subsequent to the completion of the report DoD learned that recent DoD imports of diesel fuel on Guam have averaged about 3,000 ppm. The DoD has also learned that commercial civilian imports of diesel fuel on Guam range between 5,000 ppm and 3,800 ppm. Thus, the analysis presented in the Final EIS may therefore over estimate PM (PM₁₀ and PM_{2.5}) and sulfur oxide emissions.

Second, as noted in the Addendum discussion of ULSD fuel, there is a consensus to target a switch to ULSD fuel, which contains 15 ppm of sulfur, Guam-wide by December 2012. As an interim step prior to the December 2012 Guam-wide switch to ULSD fuel, there is also a goal of

quickly moving towards the use of lower sulfur diesel fuel with a sulfur content of 500 ppm. Reducing the sulfur content of diesel fuels both in the interim and long term provides a direct fuel related reduction in PM emissions levels, including diesel PM (an MSAT) and sulfur oxide. (see

<http://www.energy.wsu.edu/documents/renewables/DieselPMEmissionReductionMeasures.pdf>).

Further, while Guam has an exemption from requirements to use only ULSD fuel by December 2014, it does not have a waiver from the ban from imports of vehicles that use higher sulfur fuel. Thus, by December 2014, only vehicles with engines that burn ULSD fuel will be legal to import into Guam. Therefore, a move towards the availability and use of ULSD fuel by December 2014 is inevitable on Guam. As lower sulfur diesel is made available for use on Guam, the DoD anticipates a considerable reduction in the estimated diesel PM MSAT emissions levels associated with roadway and facility construction and sulfur oxide emissions.

Third, as discussed in the Final EIS, emissions from construction activity associated with both roadway and facilities construction are temporary, as they are only for the period of time and at the specific location where construction activity is taking place. For roadways, the Final EIS presents criteria pollutant and MSAT emissions levels from roadway construction under the assumption that all roadway projects will be funded and completed within a five year timeframe. As shown in Volume 6, Chapter 2, Table 2.5-4 of the Draft EIS, the air quality analysis assumed that 11 projects would be completed in 2011, 4 projects in 2012, 24 projects in 2013, 8 projects in 2014, etc. However, actual construction implementation will be dependent on the availability of funding. At the present time, of the 58 proposed GRN projects that were analyzed for air quality impacts and modeled for the MSAT analysis, only five projects have been certified, authorized and appropriated under the Defense Access Road (DAR) program for construction beginning in fiscal year (FY) 2010 and only three projects have been certified and are awaiting authorization and appropriation for construction beginning in FY 2011 (refer to funding status of GRN projects in Volume 6, Chapter 1, Table 1.1-1). Eight other projects have been determined to be DAR-eligible but have not yet been certified. Funding for the remaining projects is still being identified. Therefore, the emissions levels presented in the air quality and MSAT analyses for roadway construction considerably over estimate the likely levels of emissions. Based on the current funding profile, the DoD anticipates that annual construction emissions from roadways for PM_{2.5} will peak in 2012 at 7.30 tons/year and all other MSAT emissions will be less than presented in the Final EIS.

Fourth, the current air quality and MSAT analysis is based upon a completion of realignment construction activities by 2014. With the use of adaptive program management strategies discussed under each resource in Volume 6 and summarized in Volume 7, it is anticipated that yearly criteria pollutant and MSAT emissions levels will drop considerably from what is presented in the relevant tables. With the use of force flow reduction and adaptive program management measures involving reduction in construction tempo, workforce reduction and others, there would be reduced emissions from on-road and non-road construction vehicles, and privately owned vehicles of military personnel and construction workers.

The net effect of these various factors is to point out that the air quality and MSAT analyses presented in the Final EIS is an overly conservative estimate than the actual level of MSAT emissions that will result from the realignment construction activities.

Additionally, concern has been expressed that the MSAT analysis presented in the Final EIS does not present a quantitative assessment for diesel PM. The assessment of diesel PM in the Final EIS (Volume 9, Appendix I) is a qualitative analysis only. This analysis was conducted within the limitations of USEPA guidance on evaluating PM emissions from motor vehicles at the project level. Specifically, in its 2006 Transportation Conformity Rule (See 71 FR 12498), USEPA noted:

“We continue to believe that appropriate tools and guidance are necessary to ensure credible and meaningful PM_{2.5} and PM₁₀ hot-spot analyses. Before such analyses can be performed, technical limitations in applying existing motor vehicle emission factor models must be addressed, and proper federal guidance for using dispersion models for PM hotspot analysis must be issued. With the release of MOBILE6.2, state and local transportation agencies now have an approved model for estimating regional PM_{2.5} and PM₁₀ emission factors in SIP [State Implementation Plan] inventories and regional emissions analyses for transportation conformity. However, MOBILE6.2 has significant limitations that make it unsatisfactory for use in microscale analysis of PM_{2.5} and PM₁₀ emissions as necessary for quantitative hot-spot analysis.”

Although USEPA has announced the availability of the Motor Vehicle Emissions Simulator model (MOVES2010) and approved its use for certain official purposes, USEPA has not approved MOVES2010 for project-level PM hot-spot analyses (75 FR 9411). MOVES2010 will be approved by USEPA for use in quantitative PM hot-spot analyses (in areas outside of California) when hot-spot modeling guidance is finalized. FHWA has responsibility for implementing the NEPA for federally-funded or approved highway projects and will issue guidance on the use of MOVES2010 at the project level when hot-spot modeling guidance is finalized.

More importantly, because of the specific measures noted above relative to current sulfur content for diesel fuel on Guam, the interim and final move to ULSD fuel on Guam, the fact that not all roadway projects will be implemented, and the use of use of force flow and adaptive program management measures, the conclusions of the MSAT qualitative analysis relative to diesel PM emissions still remain valid.

A.4 Quantification of Stormwater Volume and Content to Assess Effects of Stormwater on Near-Shore Aquatic Resources

Concern has been expressed that the Final EIS should provide a more detailed assessment of the impacts of stormwater runoff on marine resources associated with increased impervious surfaces that would result from both on base facilities construction and off base induced population growth. Resource agencies believe an estimate of stormwater volumes and pollutant loadings

from both on and off base growth should be used to extrapolate long-term quantifiable impacts on marine resources including Essential Fish Habitat (EFH), protected species and fish stocks.

A.4.1 Discussion

The Final EIS includes a qualitative assessment of impacts to near-shore marine waters, EFH and protected species and fish stocks [see Volume 2, Chapter 4 (Water Resources) and Volume 2, Chapter 11 (Marine Biological Resources)]. The Final EIS also provides a comprehensive and detailed qualitative assessment of expected stormwater effects, and discusses the numerous regulatory and voluntary programs that DoD is using to control stormwater runoff from its facilities (see Volume 2, Chapter 4, Section 4). Stormwater quantity and pollutant content was also assessed in detail for the primary area to be developed, the DoD's land at Finegayan, under a Comprehensive Drainage and Low Impact Development (LID) Implementation Study (see Volume 9, Appendix K). The purpose of the LID Study is to make use of innovative methods to capture stormwater using Best Management Practices (BMPs) to allow stormwater to be retained at the source rather than relying on downstream efforts to control the flow of water and contaminants.

The Final EIS provides a list of BMPs that will be considered in the design phase of the project, including their effectiveness in controlling stormwater volume and velocity, and their effectiveness in removing pollutants. For example, pollutant reductions ranges for the identified BMPs are: 84-90% for suspended solids, 9-50% for phosphorus, and 11-63% for nitrogen (see Volume 2, Chapter 4, Section 4.2 and Volume 9, Appendix K "Comprehensive Drainage and LID Study" Section 10). The 2006 CNMI and Guam Stormwater Management Manual, as adopted by the GEPA, will be used to evaluate, select, and design the BMPs identified for consideration for the Finegayan area and for other areas where DoD construction will occur under the proposed action. The 2006 CNMI and Guam Stormwater Management Manual contains information on BMPs that have demonstrated effectiveness in various areas of Guam. The manual includes information on BMPs that is available through USEPA's stormwater website at <http://cfpub.epa.gov/npdes/stormwater/menuofbmps>.

A.4.2 Comprehensive Drainage and Low Impact Development (LID) Implementation Study

The LID Study identifies and implements a variety of natural and built features to be utilized as BMPs to reduce the rate of runoff, filter out pollutants, and facilitate the infiltration of water into the groundwater table. The LID Study will be used in conjunction with the 2006 CNMI and Guam Stormwater Management Manual to provide the foundation for the basis of design for permanent stormwater infrastructure to manage stormwater from impervious surfaces on the new base at Finegayan. The LID Study provided models to predict the difference between current stormwater runoff volumes (pre-construction) and after the new base is built (post-construction). A two-dimensional flow was used to quantify pre- and post-construction stormwater runoff for a range of storm events, from the most common storms that occur frequently (1, 2, 5, 10 and 25-year storms) to those that are associated with more intense but less frequent storm events (50 and 100-year storms), in order to predict the increase in stormwater runoff from new impervious

surfaces. Pre-construction impervious surface area was calculated to be approximately 290 acres, and post-construction impervious was calculated to be 937 acres. See the LID Study, Volume 9, Appendix K, Section 5 for pre-construction impervious surface estimates and volume modeling, and Section 8 for post-construction impervious surface estimates and volume modeling.

Stormwater discharge into the ocean is not well documented for the northern Guam plateau due to the bowl-like general topography and the very high percolation rates of the limestone geology. For smaller storms, the LID model calculated a difference between pre-construction and post-construction stormwater runoff for the Finegayan cantonment area for the most frequent storm events on Guam, resulting in a predicted range of 4 million gallons (MG) for 1-year storms to 437 MG for 25-year storms. These storms represent 95% of the storms that occur on Guam (see later discussion about 95% percentile storms). The model did not make a clear distinction of what portion of the runoff at the site constitutes discharge to the ocean, and what portion was flowing to off site lands immediately to the south. It is important to note another limitation of the runoff model used in the LID analysis; its infiltration subroutine cannot model systems as porous as the Karst soils and geology of northern Guam. The infiltration routine can only model an infiltration rate of up to 1-inch per hour, while infiltration rates in northern Guam are between 2 to 6 inches per hour. Therefore, the stormwater runoff volumes predicted in the LID model are skewed higher than what will likely occur.

For larger, less frequent storms, like those associated with severe storms and typhoons, the stormwater runoff model calculated a difference between pre-construction and post-construction stormwater runoff in the range of 2,268 MG for 50-year storms to 2,854 MG for 100-year storms. Again, it is important to realize that the model did not make a clear distinction of what portion of the runoff was exiting the site as discharge to the ocean, and what portion was flowing off site to lands immediately south.

For all storms, the storm water management guideline of “no net increase” of runoff from pre- to post-development conditions will apply. For these larger storms, flood control rather than retention and treatment would be the priority. Therefore, there may be an overflow of stormwater from these larger, less frequent storm events to marine surface waters, even with the implementation of LID BMPs that are meant to retain stormwater onsite. The model used did not include provisions to incorporate flood control improvements to regulate flood waters and associated discharges from the site. In the case of larger storms that would cause flood control concerns, there would likely be natural turbulence in marine near-shore waters as part of the storm surge and high winds, so added turbulence resulting from flooding would not be significant as compared this natural turbidity due to strong wave action.

In terms of stormwater quality, the governing storm per DoD LID design criteria is the 95th percentile storm. This represents a storm more intense than 95% of the storms in northern Guam, which equates to approximately 2.2-inches of rain over a 24 hour period. The LID recommends implementation of BMPs that will contain all of the stormwater from these storms onsite; therefore, for 95% of the storm events on Guam stormwater would be contained entirely on site using BMPs that may include vegetated and structural measures. Since there are no inland surface streams in northern Guam, and the Karst soils in this area are highly permeable, the

stormwater would percolate into the ground and not reach marine near-shore waters. The BMPs will be designed to treat predicted pollutant loadings generated for each land use planned. Pollutants included in the LID study analysis include those typically linked to stormwater runoff: suspended solids, nitrogen, phosphorus, heavy metals, hydrocarbons, and bacteria. It should be noted that the 95th percentile storm used as the LID stormwater management water quality volume design criteria exceeds the local Guam standard of the 90th percentile storm. See the LID Study, Volume 9, Appendix K, Section 10 for pollutant loading estimates, and Sections 11 and 12 for expected pollutant removal efficiencies for recommended of BMPs.

A.4.3 Roads

The Federal Highways Administration prepared a separate Stormwater Implementation Plan (Plan) that recommends BMPs for consideration in the design phase of the roadway projects. The Plan found that because the roadway projects primarily include pavement strengthening and limited new pavement, projects will not result in a significant increase in impervious surfaces and new stormwater. For roadway projects in northern Guam where stormwater is expected to percolate into the ground, an estimated 76 acres of new impervious surface would result. A combination of existing and new BMPs would be used to capture and treat the stormwater prior to percolation into the ground. For roadway projects in southern Guam where stormwater may reach marine surface waters, an estimated 5 acres of new impervious surface would result. A combination of existing storm drainage systems would be utilized for stormwater disposal, with existing roadway BMPs and new BMPs capturing and treating the stormwater prior to discharge to surface waters. In the south, stormwater from roadway projects may ultimately reach Agana Bay and Inner Apra Harbor. The Final EIS concludes that there would be no significant impacts to near-shore waters from the roadway projects (see Volume 6, Chapter 6, Section 6.2.6).

A.4.4 Off Base Induced Growth

It is expected that there will be an increase in impervious surfaces associated with new development and induced growth on Guam, which will result in increased stormwater runoff off base. The volume and quality of this increased stormwater runoff would be highly dependent on many variables, including: availability of existing vacant housing and buildings, which will dictate the need for new development and construction; land use zoning, planning and permitting under the purview of GovGuam; and regulation and enforcement of GEPA's erosion control and stormwater management regulations. Because of these many variables, the Final EIS does not attempt to quantify the volumes or pollutant loading from this off base growth, nor make assumptions of what potential impacts may be from this increased stormwater runoff to marine resources.

The GEPA regulates stormwater primarily for construction related activities through their erosion and sediment control regulations and through stormwater construction permits. For post-construction activities (those that are of concern for long-term impacts to marine waters), specific operations and activities are permitted under a Multi-Sector General Permit. There are no post-construction requirements for residential and light industry developments. However, future new GEPA erosion control and stormwater management regulations will adopt the joint CNMI and

GEPA stormwater management manual. This manual includes robust requirements for new development, including requirements for both construction runoff and post construction runoff. The implementation timeline for these regulations is unknown, and their effects on long-term improvements to marine water quality are unknown.

More important, there is a general lack of existing data and information on stormwater discharges that could be used in a quantitative assessment of stormwater volume and quality from potential new growth and development off base. While DoD is aware that there has been a correlation documented between non-point source pollution (including stormwater runoff) and ecological degradation in the marine environment, DoD is not aware of studies or data that would allow an extrapolation between pollutant concentrations in stormwater runoff to quantifiable effects to specific endangered species, fish stocks, and Essential Fish Habitat (EFH), particularly in Guam marine near-shore waters. Therefore, in accordance with CEQ regulations (i.e. 40 CFR §1502.22), incomplete or unavailable information exists to enable a comprehensive understanding and assessment of stormwater runoff from off base growth and development. Given the limitations noted above, it is not possible to fully assess or determine the full significance of the indirect and cumulative impacts of stormwater runoff from the proposed action associated with induced civilian population growth and development. Further, efforts to accurately collect data and conduct the research needed to provide a link between urban stormwater runoff on Guam and impacts to marine resources, including protected species, EFH and fish stocks would involve lengthy studies and exorbitant costs.

A.4.5 Federal Coordination Responsibilities for Water Quality Impacts on Marine Resources

On February 22, 2001 the USEPA, the Department of Commerce, and the Department of the Interior published a Memorandum of Agreement (MOA) in the Federal Register entitled, "Memorandum of Agreement Between the Environmental Protection Agency, Fish and Wildlife Service and National Marine Fisheries Service Regarding Enhanced Coordination Under the Clean Water Act and Endangered Species Act." The stated purpose of the MOA is to enhance coordination between the USEPA, National Marine Fisheries Service, and the U.S. Fish and Wildlife Service to carry out their respective responsibilities under the Clean Water Act (CWA) and the Endangered Species Act (ESA). Components of the MOA include USEPA Section 7 ESA consultation on USEPA's promulgation and approval of water quality standards under section 303(c) of the CWA and approval of State National Pollutant Discharge Elimination System (NPDES) permitting programs under section 402(b). The MOA also provides a mechanism for National Oceanic and Atmospheric Administration (NOAA) and U.S. Fish and Wildlife Service (USFWS) participation in development of water quality criteria and standards, recognizing any unique requirements for listed and proposed species and designated and proposed critical habitat. It also includes establishment of a joint national research plan that prioritizes research on the effects of water pollution on endangered and threatened species. Therefore, under the CWA and ESA the determination of impacts to marine endangered species and fish stocks is a joint responsibility of USEPA, NOAA and USFWS, and is achieved through

the promulgation of water quality criteria which in turn are adapted by states and enforcement through CWA programs such as Guam's NPDES stormwater program.

A.4-6 Summary

In summary, the Final EIS contains a comprehensive assessment of expected on-base stormwater generation volumes and impacts. Based on the Final EIS analysis, EFH, protected species and fish stocks would not be affected from stormwater generated on base. In addition, EFH and fish stocks would not be adversely affected from road improvements and road construction and there would be no effect on protected species. For off base indirect/induced growth, it is not feasible to quantify stormwater runoff; therefore, it is not possible to make conclusions regarding impacts on the near-shore environment.

A.5 Notice Regarding Aircraft Carrier Wharf Proposal

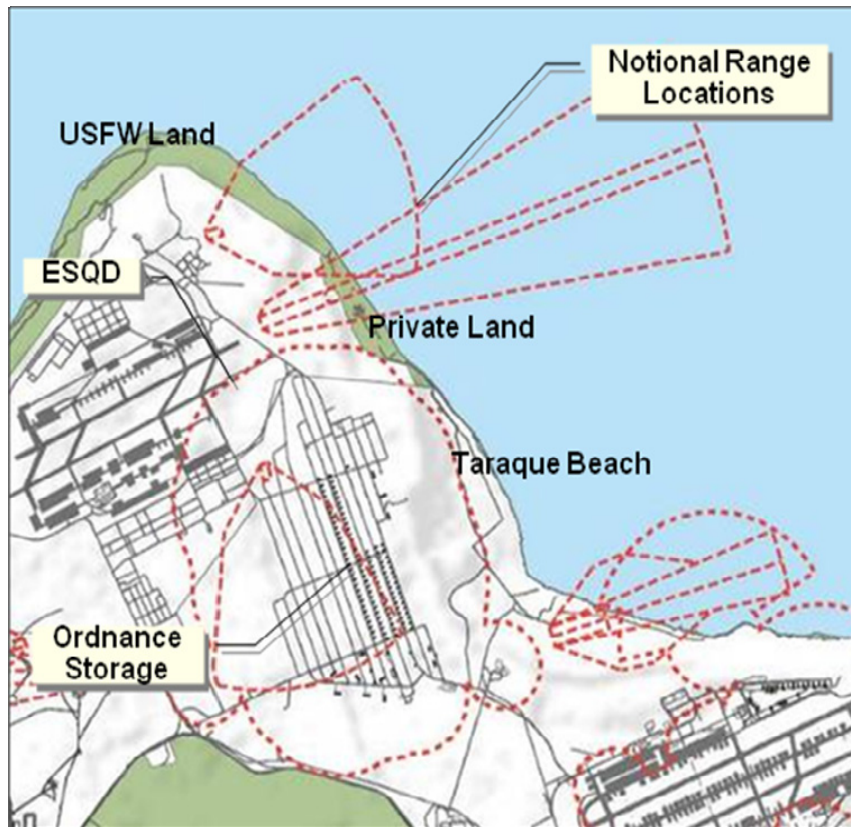
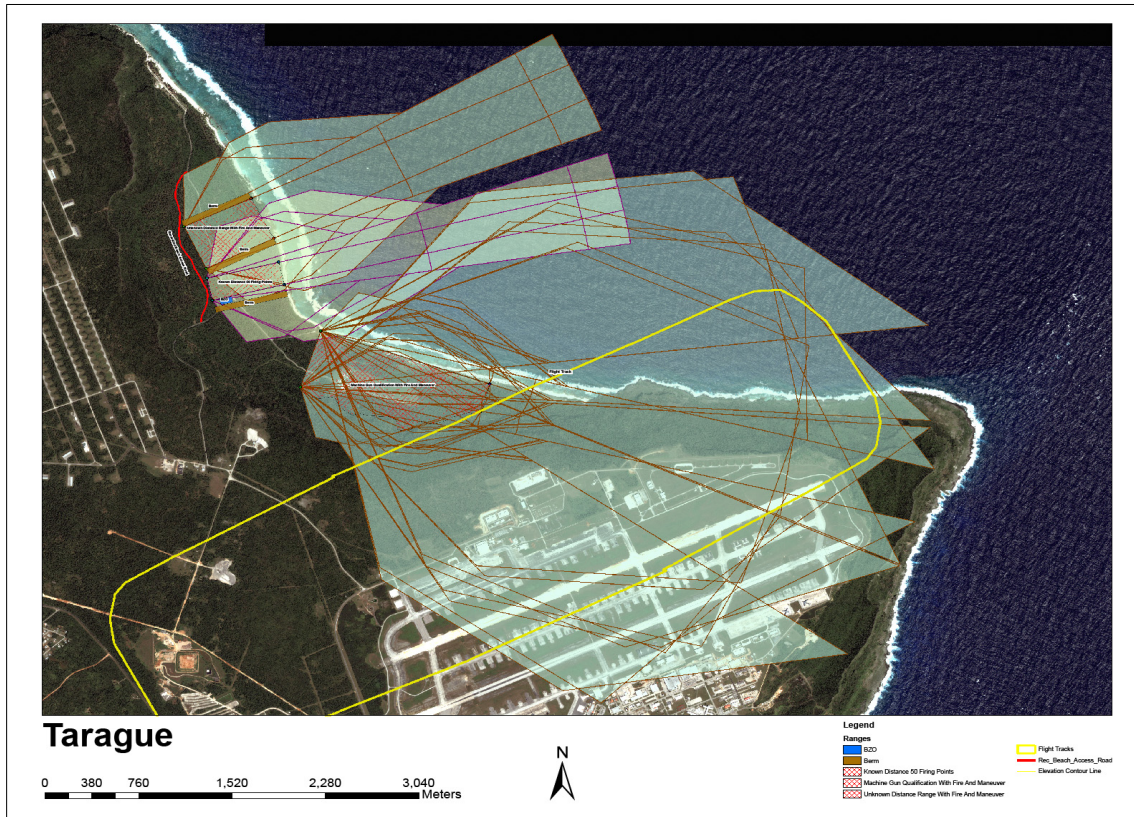
A notice has been inserted regarding the aircraft carrier wharf proposal in the Executive Summary, Volume 1, and Volume 4. The language in the notice supersedes language occurring in Volume 10 and elsewhere in the Final EIS.

A.6 Guam Social Services

The DoN acknowledges that there is the potential for effects on social services, such as educational and medical facilities, due to the added demand on services from DoD military and civilian populations as well as demand from others coming to Guam as a result of potential induced growth that may result from the DoD proposed actions. Additionally, those potential impacts, resulting in increased demands on the Guam social service, would also be affected by a possible shift in trained personnel from public and private facilities on Guam to the DoD facilities on Guam. Based upon a proposed 2014 completion date for the Marine Corps realignment effort, efforts have been made to quantify those impacts in the Final EIS. These estimates were prepared using the best available information, but were influenced by several variables, such as possible shifts of trained personnel from public and private facilities on Guam to DoD facilities, that cannot be ascertained at this time. Thus, the quantification of impacts presented in the Final EIS is less than certain. Because DoD may consider a modified timing and sequencing for the relocation of troops through force flow reduction, the quantification of socioeconomic impacts noted in the Final EIS may not occur. Because of difficulties in quantifying such impacts in normal circumstances, much less under a under force flow reduction mitigation scenario, those social service needs on Guam are best addressed by the independent, ongoing, work of the Office of Economic Adjustment in support of the Economic Adjustment Committee's development of a Guam infrastructure plan for those social services.

A.7 Training Range Site Selection

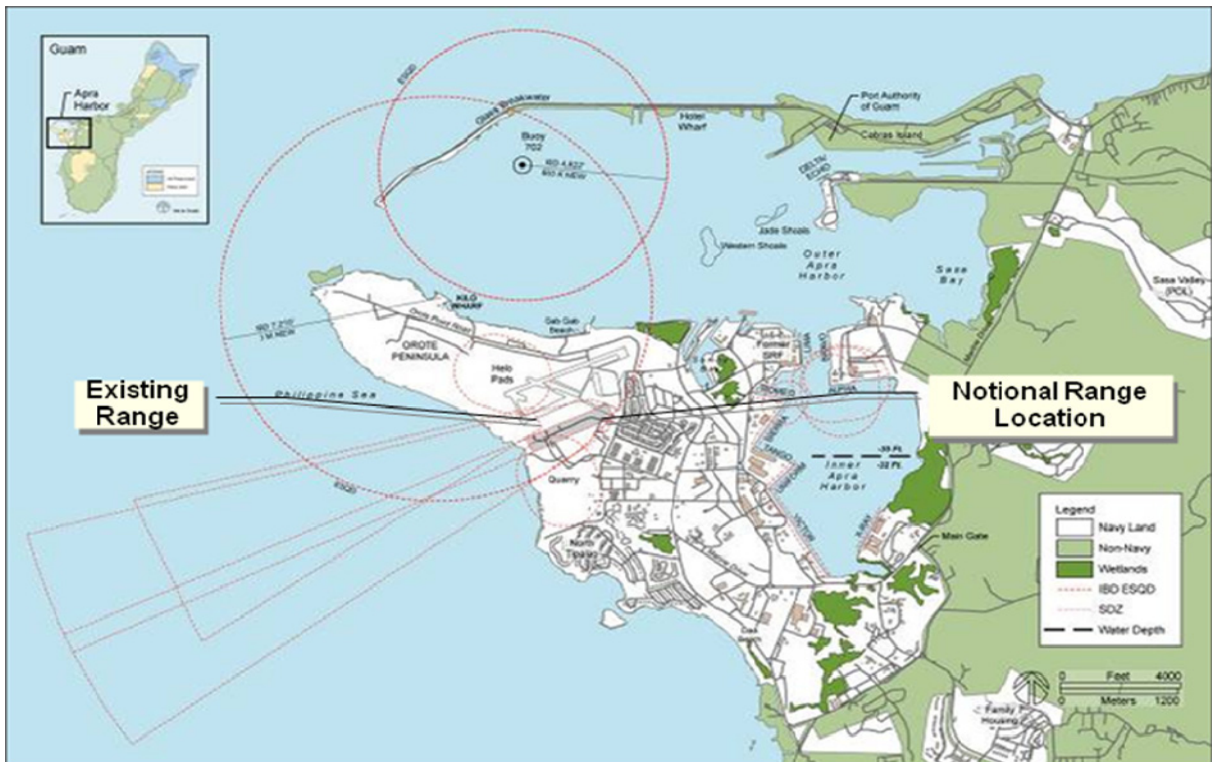
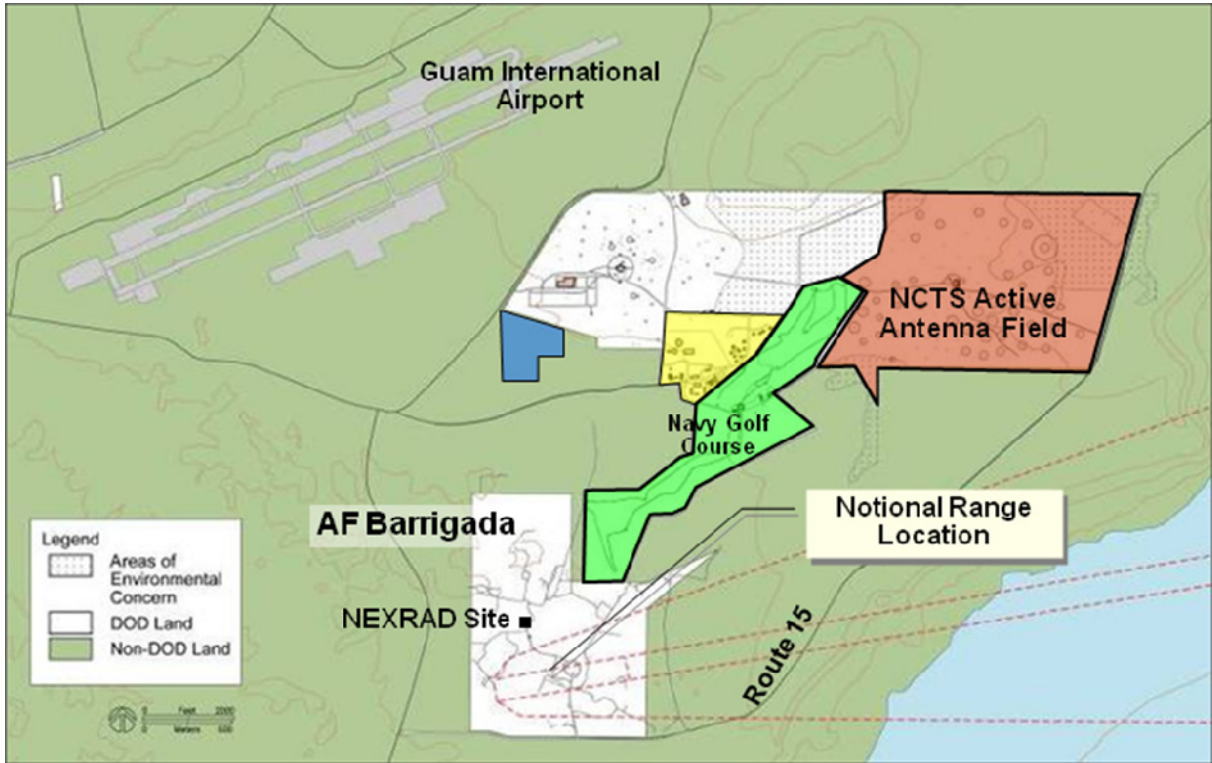
The following images and depictions are added to depict the Surface Danger Zones (SDZs), Explosive Quantity Safety Distance (EQSD) arcs, installation boundaries, and other features associated with possible location of live-fire training ranges on various DoD installations that were not carried forward for consideration as alternatives.



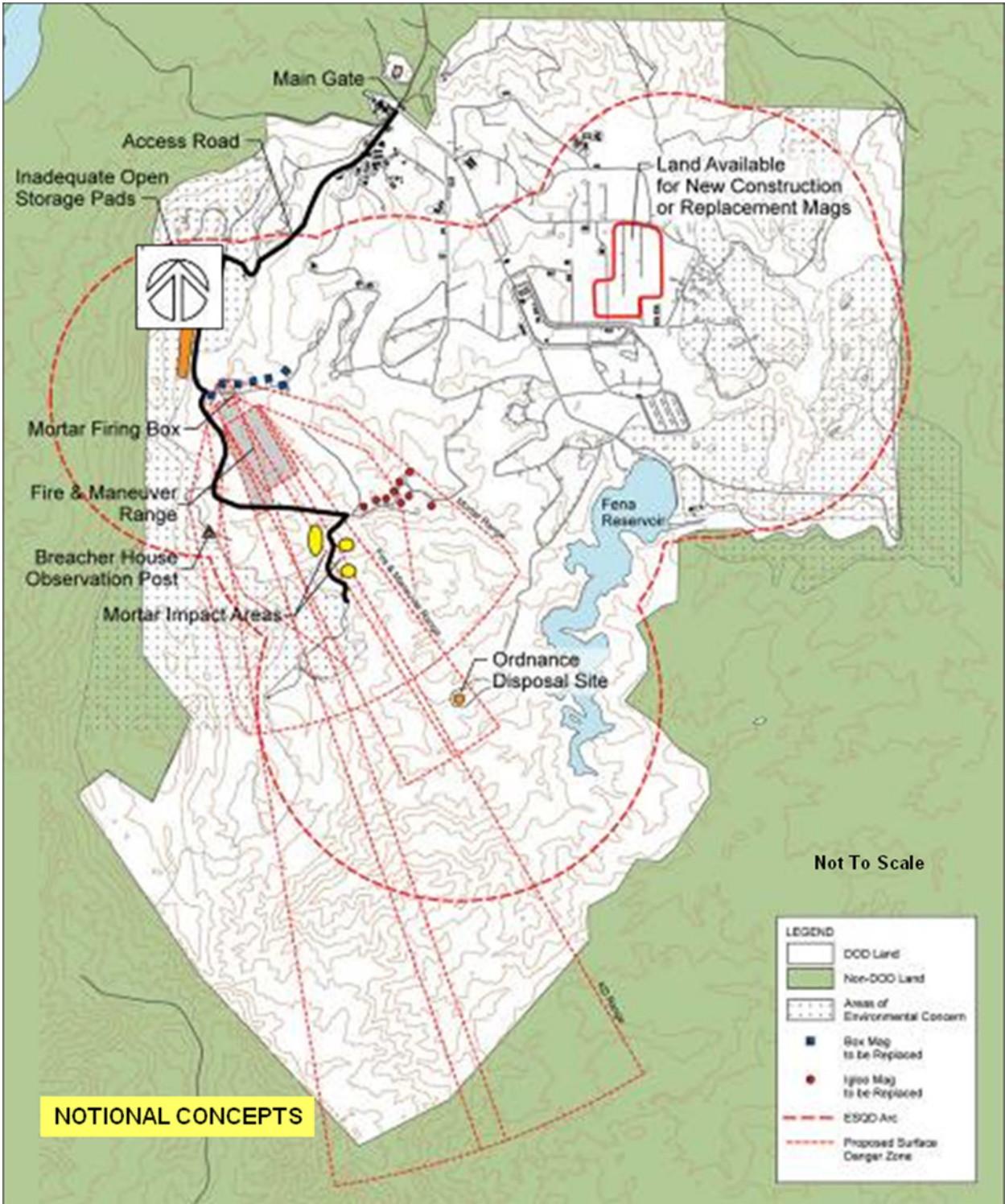
Andersen Air Force Base Training Range Alternatives Considered and Dismissed



NCTS Finegayan Training Range Alternatives Considered and Dismissed



Navy and Air Force Barrigada (upper figure) and Navy Base Guam (lower figure) Training Range Alternatives Considered and Dismissed



Naval Munitions Site Training Range Alternatives Considered and Dismissed

Comments were raised on the Draft EIS calling for the consideration of Tinian as a site for location of individual combat skills live-fire training ranges. As noted in Volume 2, Section 2.3.1, individual combat skills training for individual and crew-served weapons must be accomplished annually for every Marine based in Guam. This training is the basic building block for small unit training that is the next step in a training continuum that moves from individual, to small unit, to company level, to battalion level to higher level combined arms training. Given the frequency of individual combat skills training and its importance in the overall combat skills training continuum, live-fire training for such individual combat skills must be accomplished on ranges located nearby the work/station location of Marine Corps forces. Nearby training is required to maximize combat readiness of individual Marines and the efficient use of unit training time. The time required to travel to Tinian, the lack of regularly scheduled lift capability for transit to Tinian, and the large number of Marine Corps personnel that must receive such individual combat skills training would make such training on Tinian inefficient from a training continuum management perspective and more importantly would not maximize combat readiness. Therefore, use of Tinian as a location for individual combat skills live-fire training ranges was not considered as viable site in the site screening or alternatives development process. Further, as noted in Volume 3, the proposed ranges on Tinian are designed for use in the next step of the training continuum, small unit training. The training areas on Tinian cannot support both the individual and small unit combat skills training and their associated ranges. Additionally, as noted in Volume 3, the use of ranges on Tinian would be as an expeditionary setting, operating on a largely self sustaining basis with very little infrastructure and support staff. Such a set-up could not support the needs of individual combat skills training given its greater frequency and volume of usage.

Concerns were also raised on the Draft EIS concerning the scope of usage of proposed live-fire training ranges on Guam. As noted in Appendix M of Volume 9, range utilization analysis of a proposed live-fire training range complex on Guam considered the needs of all services, including the National Guard, Army, Air Force, and Navy units. Also considered in assessing the requirements for proposed live-fire training ranges on Guam were the intermittent/limited needs of transient units, whether they be U.S. or allied forces, for such individual combat skills training. Transient units that deploy to Guam are generally expected to be fully qualified prior to their arrival. However, newly arriving individuals to such units may require individual qualification on weapons systems. All use of the live-fire training range complex, whether it by Marine Corps forces, other services, or allied forces, would be conducted in accordance with the developed Range Management Plan.