



# Commonwealth of the Northern Mariana Islands

## OFFICE OF THE GOVERNOR Bureau of Environmental and Coastal Quality

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August 10, 2020

Julianne Turko  
AFCEC/CZN  
Attn: Tinian Divert SEIS  
2261 Hughes Ave, Suite 155  
JBSA Lackland, TX 78236

Dear U.S. Air Force,

The Commonwealth of the Northern Mariana Islands (CNMI) Bureau of Environmental and Coastal Quality (BECQ) has reviewed the "Final Supplemental Environmental Impact Statement for Tinian Divert Infrastructure Improvements for the Commonwealth of the Northern Mariana Islands" (SEIS) to support the United States Air Force (USAF) efforts to establish divert capabilities to support and conduct current, emerging, and future exercises in the event that Andersen Air Force Base is limited or denied. BECQ was notified by email on July 16, 2020, on the availability of the document by the Commonwealth Bureau of Military Affairs (CBMA). The mission of BECQ, composed of the Division of Environmental Quality (DEQ) and the Division of Coastal Resources Management (DCRM), is to serve the public through wise management of CNMI natural resources, and by supporting healthy communities, a sustainable environment, and a vibrant economy.

Through CNMI Public Law 3-23, also known as the "Commonwealth Environmental Protection Act," DEQ was created to establish and enforce environmental standards to protect and preserve the natural resources of the Commonwealth and the right of each person to a clean and healthful public environment, as guaranteed by Section 9 of Article 1 of the Constitution. CNMI Public Law 3-47, or the "Coastal Resources Management Act," established DCRM in order to promote conservation and wise development around the CNMI's coastal resources. DCRM, in its federal consistency determination response letter to the USAF, dated on August 8, 2019, conditionally concurred with the USAF's federal consistency determination that the proposed project is consistent to the maximum extent practicable, provided that a Major Siting permit is obtained from DCRM as the proposed project has the potential to directly and significantly impact Tinian's coastal resources.

BECQ is appreciative of the USAF's efforts to address the comments and concerns raised on the Draft SEIS and Final SEIS. BECQ submits these comments for consideration for inclusion into

the forthcoming “Record of Decision” (ROD) to support improved coordination and management outcomes for the Tinian Divert Infrastructure Improvements and request that the following concerns are addressed in the ROD.

USAF stated, that “The purpose of the original Proposed Action is to establish divert capabilities *to support* and conduct current, emerging, and future USAF exercises, while ensuring the capability to meet mission requirements *in the event that access to Andersen Air Force Base or other western Pacific locations is limited or denied.*” BECQ concurs that a divert airfield would aid USAF in meeting their mission requirements, should Anderson Air Force Base be unavailable. However, USAF provided insufficient information on why using tanker trucks to transport fuel to the divert airfield is not currently meeting this need. It is BECQ’s opinion that constructing a pipeline with the associated volume of fuel it will contain grossly exceeds what is necessary to supply a divert airfield given the infrequency with which the USAF would need to use a divert airfield (*i.e.*, only when Anderson Airforce Base is not available).

The greatest concern for BECQ is that USAF is proposing to construct a pipeline over the sole source of Tinian’s potable water supply. Given the many pipeline failures that have resulted in irreparable environmental damage throughout the U.S. and other countries over the years, this alternative has the potential for the greatest harm to Tinian’s aquifer, nearshore environment, and the health of the public in general that has no other viable drinking water source.

In addition, USAF has not provided any detail regarding how it would propose to keep the fuel left standing stagnant in a pipeline from fouling or from corroding and weakening the pipeline’s integrity. This fuel would need to be kept flowing, and there is simply not enough need for a flow of this volume of fuel for a divert airfield. USAF provided no detailed maintenance or monitoring plans to check for and immediately repair any leaks or cracks in the system, which shows USAF has conducted a less than robust assessment of potential adverse environmental impacts should the system fail.

BECQ’s comments on specific sections of the SEIS are detailed below, with relevant language from the SEIS included for reference.

### **Solid Waste Management**

**4.9.1 4-53 During Construction** *“Solid Waste. Waste would be recycled per EO 13834, Efficient Federal Operations, and DOD requirements. Additionally, waste from vegetation clearing for construction would be composted, as practicable. USAF or their contractors would obtain all necessary permits for solid waste management and processing, including recycling and green waste processing. Required permits could include the BECQ Solid Waste Collection and Solid Waste Processing permits. Contractors hired for the various construction projects would be responsible for the removal and disposal of their construction wastes generated on site.”*

BECQ requests that strategies to reduce types of waste that are difficult to dispose, such as scrap tires, lead-acid batteries, construction and demolition debris, and household hazardous wastes, be implemented during and after construction. USAF must submit a Solid Waste Management Application and Plan to DEQ along with the projection of the types and volumes of wastes to be generated, disposed, and recycled.

## Stormwater Management

*F2.1 - "The permanent stormwater management infrastructure ... peak discharge rate frequency would not exceed the pre-development peak discharge rate for the 25-year frequency storm event (CNMI BECQ and GEPA 2006). USDA NRCS has calculated a 25-year, 24-hour rainfall event to be 12.49 inches for Saipan (USDA NRCS 2008)."*

BECQ appreciates that USAF did put more forethought into the infrastructure design plan for the pipeline in this final SEIS. However, USAF is still proposing to design the structure to meet a 25-year 24-hour *rainfall event* based on published rainfall intensity duration frequencies for CNMI, and relying on *past* published CNMI rainfall event data is insufficient to design for *future* rain events or storms. BECQ recommends that USAF's designs be based on future rainfall/storm projection models to keep pace with ever increasing frequencies and intensities of storm events related to climate associated conditions. The scientific community is coming to understand that infrastructure designs should be built to withstand 50- or even 100-year *storm events*, depending on the infrastructure's proximity to the coast, and should also consider that these events may last longer than a mere 24 hours.

Our experience in the CNMI over the past five years confirmed that storm events in the CNMI are lasting longer than 24 hours. Super Typhoon Soudelor lasted over 48 hours (August 2 – 3, 2015), as did Super Typhoon Yutu (October 25 – 26, 2018).

Therefore, BECQ recommends that USAF be at the forefront of designing for the future by preparing for climate-related disasters, acting as an extraordinary model for other government agencies to replicate. BECQ suggests that USAF design infrastructure plans that are preparing to withstand a 50- to 100-year storm event, with the foresight that storm events may last as long as 24 to 36 hours, to proactively design for the future.

*F-8 - "Site-Specific Measures. USAF would design all construction site stormwater management measures to accommodate (safely convey without creating erosive conditions) the 10-year frequency storm. The 10-year frequency storm represents a large event that will generally produce significant runoff and yet has a relatively high chance of occurring in any given year (i.e., 10 percent) (CNMI BECQ and GEPA 2006)."*

BECQ appreciates that USAF considered past-published CNMI rainfall data and the 2008 USDA NRCS recommendations for estimating a rainfall event on Saipan. However, the calculated 2.92 inches of rainfall for Saipan during a 10-year, 1-hour rainfall event, is severely outdated. This calculation was based on data from over 10 years ago, and is not considered protective against future rainfall intensities and the storm surge expected to occur with ever-increasing storm events. Therefore, BECQ recommends that USAF calculate the rainfall estimate based on future rainfall projection models for designing stormwater management measures associated with a 50-year, 15-hour rainfall event, before finalizing the SWPPP. Regardless of the selected alternative, commitments to design and implement site-specific mitigation measures to protect water quality and reduce flooding risks should be included in the Record of Decision.

A One Start Earthmoving Permit must be obtained prior to all and any earthmoving and construction activities. No earthmoving or land clearing activity shall take place unless clearance has been obtained from DEQ. Until this clearance has been obtained no person shall commence or continue any earthmoving activity including grading, excavating, filling, or clearing of vegetation, and no activity shall take place without having first obtained a permit in accordance with DEQ. Approvals from other agencies (e.g. Zoning Office, Coastal Resources Management Office, and Department of Lands and Natural Resources, Division of Fish and Wildlife, and the Historic Preservation Office) may also be required prior to issuing a permit.

### **Fuel Pipeline and Support Infrastructure**

*2-4 Lines 14-19 - "Low point drains would be installed in pits lined with fiberglass to prevent infiltration to the subsurface soils or groundwater and would allow access below ground surface. Drained material would be removed from the pits via a vacuum truck, or similar process."*

In its comments on the Draft SEIS, BECQ noted that drained material would be removed from the pits via a vacuum truck or similar process, and then asked "Where would the drained material removed from the pits be disposed?"

USAF stated in Section 4.11.2 of the final SEIS that the material would be "disposed of in accordance with federal and CNMI laws, including the Resource Conservation and Recovery Act (RCRA)." BECQ appreciates this assurance, especially for the appropriate handling of any hazardous materials encountered, given the amount of contamination encountered from World War II unexploded ordinance (UXO), and other munition and munition constituents remaining in CNMI ground water and in soil and sediment in the near-shore environment. There is no protocol in the final SEIS in regards to UXO encountered during the construction of the pipeline. BECQ is concerned about what steps will be taken when UXO is considered "unsafe to move" and about the protocol to blow in place any such UXO).

In addition, USAF's response to BECQ's comment still does not answer "where" these materials will be disposed. Potential locations and their alternates should be discussed in detail as part of this SEIS process.

### **Pipeline and Support Infrastructure Selection of Alternatives**

*2-14 Lines 4-7 - "The No Action Alternative would increase fuel resupply time and increase for the risk of environmental impacts from potential fuel spills from trucks during loading, driving, and offloading."*

BECQ appreciates that USAF included the 2017 Strata study citation in the Final SEIS. However, as stated on the Strata website, this organization is focused on "the principles of liberty and free markets." This perspective is useful for assessing overall lifecycle costs "for fuel transfer" and construction, but lacks a thorough scientific assessment of any potential long-term adverse environmental impacts and of the astronomical associated cleanup and remediation costs incurred when a pipeline failure causes irreparable damage. Please provide a substantial analysis

of impacts to coastal resources. Analysis should consider other studies that assess spillover effects into coastal waters.

This is of special concern to BECQ given that the proposed pipeline is on top of Tinian's ground water aquifer, which is the primary source for Tinian's potable water supply. Should a pipeline failure result in leaks, the effect would be catastrophic to Tinian's primary drinking water source and to the general public who would be put at risk from the associated public health impacts. This concern is well founded, given that Flint, Michigan is still contending with a public health crisis after using a contaminated water supply as their primary source. Flint, Michigan had other immediate sources available, but Tinian does not have this luxury.

To underscore BECQ's concern, a study by Belvederesi, C., et al, in 2018, investigated "pipeline accident data provided by PHMSA (Pipeline and Hazardous Material Safety Administration) between 2010 and 2017, with a focus on environmental consequences of hazardous liquid pipeline accidents." (Belvederesi, C., et al, "*Statistical analysis of environmental consequences of hazardous liquid pipeline accidents*", *Heliyon*. 2018 Nov; 4(11): e00901., Published online 2018 Nov 7. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6226826/>). Belvederesi, C., et al, analyzed eight years of PHMSA accident data to estimate the "average amount of released product, the average time elapsed between the accident, the emergency response from the oil company, and the average costs of environmental remediation." This raises the question of how USAF would control and monitor for leaks or pipeline degradation and respond in a timely manner to control and contain spills.

Belvederesi, C., et al, found that as a result of the lag time between the accidental spill and the response, "on average, 85% of product released after an accident remained unrecovered, 53% of accidents led to soil contamination, [and] 41% of accidents impacted environmentally sensitive areas." In addition, the study estimated, "On average, 39% of accidents had adverse effects on fish, 33% on birds, and 28% on terrestrial wildlife."

As a result, the study estimated that "annual average environmental damage and remediation costs were USD 140 million," a cost that USAF would be remiss to not consider in project design planning and in reserving additional funds for emergency response, cleanup, and remediation should a spill occur.

Belvederesi, C., et al, noted that the PHMSA requires "additional precautions for water-crossing pipelines, as they are subject to higher risks (i.e. highly corrosive sea water, shear stress from water flow) and potentially lead to large consequences for the environment,, as would be the case with the proposed pipeline terminating at Tinian's shoreline. Nowhere does USAF mention the additional design features for this water-crossing pipeline.

As an example of the environmental costs that have been incurred in the past with water-crossing pipelines, the Enbridge pipeline that ruptured in a wetland in Marshall, Michigan in July 2010 resulted in a reported release of 843,444 gallons of crude oil into a tributary of the Kalamazoo River. The cleanup began with Enbridge removing "nearly 190,000 cubic yards of oil-contaminated material and 1.15 million gallons of oil." (August 2013. EPA report, "*Dredging begin on Kalamazoo River*" <https://www.epa.gov/sites/production/files/2016->

[06/documents/enbridge\\_fs\\_201308.pdf](#).) The EPA report stated that Enbridge was to dredge an approximate additional 350,000 cubic yards of contaminated sediment in 2013 as part of their remediation requirements. Even after these efforts, EPA stated that the “162,000-168,000 gallons of oil that will remain in the river after this dredging work is complete will not be able to be recovered right away without causing significant adverse impacts to the river.” Presently, Enbridge continues to use sediment traps to capture contaminated soils and to monitor the movement of the remaining crude in the river to see if additional removal may be possible in the future. In addition, a June 2015 report by USFWS announced that a natural resource damage (NRD) settlement with Enbridge required the company to pay an additional sum of nearly \$4 million for multiple resource restoration projects along the Kalamazoo River. (<https://www.fws.gov/midwest/news/785.html>)

Moreover, rails are not assessed as an alternative in the final 2020 SEIS. NEPA requires an agency to examine all “reasonable” alternatives. The SEIS cites Strata 2017 for safety and cost efficiency as superior to trucks and rails, but does not cite the significantly lower environmental impacts of a rail (83 barrels spilled per million tons moved every mile) versus a pipeline (269 barrels spilled per million tons moved every mile) or a truck (326 barrels spilled per million tons moved every mile). Frittelli et al. 2014 state that “Railroads are a viable alternative to pipeline transportation largely because they offer greater flexibility... The geographic flexibility of the railroad network compared to the oil pipeline network can be especially beneficial for a domestic market in flux” (pp5-6). Therefore, BECQ concludes that the alternative of a pipeline was not adequately addressed in comparison with the alternative of using tanker trucks to transport fuel to the airfield (an alternative that has worked without incident for decades), or in comparison with the alternative of using rail transport.

Because the proposed fuel pipeline rate of flow would be approximately 2,000 gallons per minute, BECQ has concerns regarding leaks or major accidents that can damage the pipeline, including how releases will be prevented and what type of emergency response will be in place to help contain the releases. On the impressed current cathodic protection system proposed, the sacrificial anodes tends to corrode. Anodes must be inspected over time to ensure immediate detection of corrosion and/or any system components in need of replacement. These considerations should be discussed in detail as part of this SEIS process.

### **Environmental Consequences**

***4.2.2.2.1- West and East Routes -Nearshore Marine Resources.*** Lines 1-3 - “*Short-term, indirect, negligible impacts on nearshore marine resources could occur from sedimentation, runoff, and potential spills during the construction of the fuel pipeline and support infrastructure.*”

CNMI’s comment on the Draft SEIS requested that the two alternative routes be assessed separately since the West route is much closer to the shoreline. Since a large portion of the West and East alternatives follow the same corridor, USAF responded that no change was necessary in the SEIS since the analysis was based on NMFS consultation for EFH and

MMPA.

While this may prove to be true, it would be diligent to entertain such a request by the CNMI to build on the relationship between the Commonwealth and the USAF.

**4.2.2.2.2** – No Action Alternative Lines 24-25 – *“Greater impacts on marine species from potential fuel spills would be expected because spills and leaks from trucks are more common than from pipelines (Strata 2017).”*

BECQ requested the estimated volume of a spill should the pipeline fail. USAF did not provide this information. USAF’s response that “[m]ore specific information regarding total volume of a potential spill is not available, and will be calculated during the 100% design process for the pipeline, to be completed after ROD” is unacceptable. This question should be addressed prior to the issuance of the ROD.

As noted in Belvederesi, C, et al, findings above, there is a lag time between an accidental spill and the response, which could release copious volumes of fuel before containment. This is especially true on a remote island such as Tinian. Contamination of Tinian’s nearshore environment and its sole source potable water supply would cause irreparable damage and could result in a public health catastrophe. Islands, unlike continents, do not have nearby options to respond to water supply emergencies, as the CNMI unfortunately experienced firsthand after Super Typhoon Yutu.

The USAF detection system limit of 0.004% of the total volume, if indeed attainable, suggests that an estimated leak of 4.8 gallons would be detected within an hour. However, no detail is provided on how many hours would be required for USAF to feasibly respond to the detection, how quickly USAF could deploy a response team to contain a failed pipeline, and what measures would be implemented to protect the environmental resources of Tinian. As demonstrated in the Enbridge Kalamazoo River spill and other PHMSA data, a pipeline can spill hundreds to thousands of gallons if uncontained. Tinian does not have another potable water supply to accommodate such contamination. BECQ cannot waive the permitting review process until after the issuance of the ROD. This project will require a Major Siting Permit and is located in an Area of Particular Concern (APC), which raises both serious environmental and public health concerns.

In addition, USAF failed to consider the high cost of remediation should such a disaster as a fuel spill occurs. Monitoring, response, and remediation costs must also be considered when calculating the costs “for fuel transfer and construction” of the Divert airfield, as part of a thorough EIS assessment. It is of note that the NRD settlements for the Enbridge pipeline spill into the Kalamazoo River resulted “in at least \$62 million being spent to resolve natural resource damages.” (June 2015, WSFWS Newsroom report.) BECQ’s concern is with the length of the pipeline running underground from the Airport to the Seaport. USAF has not provided information regarding whether there will be some spill containment measures in place, such as secondary containment for the entire length of the pipeline. USAF must use numerous leak and release detection methods for the entire pipeline, and must install an automatic shut off device for the fuel in case of any damage to the pipeline or during delivery of fuel. USAF must also

construct the pipeline must in accordance to National Recognized Association Codes of Practice such as API and ASTM, among others.

Therefore, BECQ is requesting that the ROD provide time-bound commitments for the USAF to provide the 100% design plan as soon as possible in conjunction with the monitoring and emergency response plans and related permit application materials so a thorough assessment of the *practicality* of a pipeline be compared to the continued use of tanker trucks that have provided fuel transport from seaport to the Tinian airport for decades. BECQ and our federal partners must be allowed to consider all feasible alternatives when weighing the potential impacts and the associated costs of operation to complete a robust review as part of a thorough permitting process before any ROD is issued.

Last but not least, BECQ recommends that PACAF engage in further coordination with the CNMI Department of Public Lands (DPL) and Commonwealth Ports Authority (CPA) with respect to existing leases on Tinian. Please note that a substantial change in the scope of the Divert action would merit new federal consistency review, which is handled by the BECQ Division of Coastal Resources Management. BECQ invites USAF to share updated data, reports, and related information with CNMI resource management agencies early in your drafting process and throughout monitoring efforts to further support meaningful review and avoidance of impacts. To ensure full review of future documents in time-limited comment periods, we request that you send copies to our office digitally rather than by post – you can email me directly at [elicabrera@becq.gov.mp](mailto:elicabrera@becq.gov.mp).

Sincerely,



ELI D. CABRERA

Administrator

Bureau of Environmental and Coastal Quality

cc: Gil Birnbrich, Legal Counsel, Office of the Governor  
Janice Castro, Director, Division of Coastal Resources Management  
Jonathan Arriola, Director, Division of Environmental Quality