NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM FACT SHEET

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| Permitted Facility and Address: | Unitek Environmental Guam Waste Transfer Facility<br>1026 Cabras Highway<br>Port of Guam<br>Piti, Guam 96925 |
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| NPDES Permit No.: | GU0020346 |

## PART I: STATUS OF PERMIT

Unitek Environmental Guam (hereinafter, the "permittee") has applied for renewal of its National Pollution Discharge Elimination System ("NPDES") permit pursuant to U.S. Environmental Protection Agency ("USEPA") regulations set forth in Title 40, U.S. Code of Federal Regulations ("CFR"), Part 122.21, for the discharge of treated wastewater from its mobile treatment plant to Category M-2 and Category M-3 marine waters of Apra Harbor. These regulations require any person(s) who discharges or proposes to discharge pollutants from a point source into waters of the U.S. to submit a complete application for a NPDES permit, including a renewal of a permit. The permittee is currently discharging to Apra Harbor under NPDES Permit No. GU0020346, which became effective on June 26, 2006, and expired on June 25, 2011. In accordance with 40 CFR 122.21(e), on March 25, 2011 the permittee submitted an application for renewal of its NPDES permit.

## PART II: DESCRIPTION OF FACILITY

The permittee owns and operates a mobile treatment plant that removes oil from bilge and oily wastewater. The mobile treatment plant consists of two two-inch, air-operated diaphragm pumps, one 100 gallon per minute oil water separator with corrugated plate interceptor, one 550-gallon oil storage tank, two dual sock filter units, and an activated carbon tank. Effluent discharges from the mobile treatment plant include treated bilge water from vessels that are cleaned during routine maintenance, repair, or decommissioning and facility wastewater contaminated by used oil. Vessels serviced by the mobile treatment plan in this permit include U.S. Military Sealift Command (MSC), Matson, Horizon, various cargo carriers, fishing vessels, and tugs.

Wastewater is processed directly through the mobile treatment plant or stored in mobile tanker trailers or intermodal tanks prior to processing. All wastewater is treated by the mobile treatment plant prior to discharge to Apra Harbor/Philippine Sea. The mobile treatment plant is operated on an on-call basis at the Port of Guam and has an estimated design flow rate of 0.144 million

gallons per day ("MGD") although actual discharge varied from 0 MGD to 0.29 MGD (or 100,000 gallons in a month) over the previous permit cycle. Discharge from the mobile treatment plant has been intermittent, with six discharge events reported from 2006-2011.

## PART III: DESCRIPTION OF RECEIVING WATER

The facility proposes to discharge to Apra Harbor/Philippine Sea. To protect the designated uses of surface waters of the U.S., the Territory of Guam ("Guam") has adopted water quality standards for marine waters depending on the level of protection required. According to *Guam Water Quality Standards, 2001 Revision* ("GWQS") (Public Law 26-113, June 18, 2002, Guam Environmental Protection Agency ("GEPA")), GEPA classifies Apra Harbor as a Category M-2 ("Good" quality) marine water in the vicinity of Outfalls 001, 003, and 004 and a Category M-3 ("Fair" quality) marine water in the vicinity of Outfall 002.

Beneficial uses assigned to Category M-2 include:

1. propagation and survival of marine organisms, especially shellfish and other similarly harvested aquatic organisms, corals, and reef-related resources;
2. whole body contact recreation;
3. mariculture activities; and
4. aesthetic enjoyment and related activities.

Beneficial uses assigned to Category M-3 include:

1. general, commercial and industrial use;
2. protection of aquatic life;
3. aesthetic enjoyment;
4. recreation with limited body contact; and
5. shipping, boating and berthing, industrial cooling water, and marinas.

Apra Harbor is listed in the 2008 Guam 303(d) list for impaired water bodies for PCBs based on a 1999 fish advisory. A TMDL has not currently been developed for this water body.

The mobile treatment plant discharges to Apra Harbor through the following discharge outfalls during operation:

| Discharge Outfall Number | Latitude | Longitude | Outfall Description |
|---|---|---|---|
| 001 | 13°28'00" N | 144°40'30" E | Port of Guam, Guam Regional Hazardous Waste Transfer Facility (discharge will be prohibited upon relocation to 004) |
| 002 | 13°27'30" N | 144°40'00" E | Port of Guam, Foxtrot Wharf |
| 003 | 13°27'45" N | 144°39'00" E | Port of Guam, Hotel Wharf |

| | | | |
|---|---|---|---|
| 004 | 13°27'52" N | 144°39'59" E | Port of Guam, Proposed Relocation (will replace 001; discharge is prohibited before relocation of 001) |

## PART IV: DESCRIPTION OF DISCHARGE

The permittee provides a service to vessel operators and various island facilities for the removal of oil in bilge and oily wastewaters, respectively; discharge is intermittent in nature as the treatment plant operates on an as-needed basis. The mobile treatment plant receives the wastewater and discharges the treated effluent to Apra Harbor via the discharge points previously described. The reclaimed oil is processed for energy at the Cabras Island power plant. Table 1 provides a summary of discharge characteristics based on data from six reported events, which were provided on the Discharge Monitoring Report ("DMR") forms from the period of October 2007 to March 2011 and the permittee's NPDES permit application, EPA Form 3510-2C, dated March 25, 2011. Effluent data from Outfalls 001-003 were pooled for the purpose of this analysis as the waste stream is treated by the same mobile treatment plant before discharge. There were no reported effluent limit exceedances during the previous permit cycle.

The permittee requested an additional outfall in the permit renewal application to accommodate the relocation of Unitek's facility; discharge from the new outfall, Outfall 004, is assumed to be of the same quality as Outfalls 001-003. The schedule for the relocation, which will occur as part of the Port of Guam expansion, is not finalized at the time of this permit issuance. At the time of the facility's relocation, discharge will be authorized from Outfalls 002, 003, and 004 only; discharge from Outfall 001 will then be prohibited.

**Table 1. Comparison of effluent limitations from the previous permit period (2006-2011) and effluent data from the Discharge Monitoring Report forms and the permit application**

| Parameter | Units | Daily Maximum Allowable Effluent Limitation | Reported Maximum Concentration |
|---|---|---|---|
| Flow rate | MGD | -- | 0.29 |
| pH | S.U. | 6.5-8.5 | 7.14, 7.89[1] |
| TSS | mg/L | -- | 19 |
| Ammonia | mg N/L | -- | 0.25 |
| Oil and Grease | mg/L | 15 | 7.26 |
| Lead | mg/L | 0.21 | <.005[2] |
| Orthophosphate | mg/L | 0.1 | <0.03 |
| BTEX: | | monitor only | |
| Benzene | mg/L | | <.0005 |
| Toluene | mg/L | | <.0007 |
| Ethylbenzene | mg/L | | <.0005 |
| Xylene | mg/L | | <.0007 |

1. pH concentrations are the minimum and maximum values reported.
2. "<" means the concentration was below the laboratory's practical quantitation level for the parameter.

## PART V: DETERMINATION OF NUMERICAL EFFLUENT LIMITATIONS

The Clean Water Act ("CWA") requires point source dischargers to control the amount of pollutants that are discharged to waters of the United States. The control of pollutants is established through effluent limitations and other requirements in NPDES permits. When determining effluent limitations, USEPA must consider limitations based on the technology used to treat the pollutant(s) (i.e., technology-based effluent limits) and limitations that are protective of water quality standards (i.e., water quality-based effluent limits).

USEPA evaluated the typical pollutants expected to be present in the effluent and selected the most stringent of applicable technology-based standards or water quality-based effluent limitations. Where effluent concentrations of toxic parameters are unknown or are not reasonably expected to be discharged in concentrations that have the reasonable potential to cause or contribute to violations of water quality standards, USEPA may establish monitoring requirements in the permit. Where monitoring is required, data will be re-evaluated and the permit may be re-opened to incorporate effluent limitations as necessary.

### A. Applicable Technology-based Effluent Limits

Section 402(a)(1) of the CWA and 40 CFR 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern; BPJ was used to derive the technology-based effluent limitation for oil and grease proposed in this permit because effluent limitations guidelines (ELGs) were not available.

#### 1. Technology-based Effluent Limitations

Effluent limitations for oil and grease are proposed for discharge from all outfalls (Outfalls 001-004). The current permit established a maximum daily effluent limitation of 15 mg/L. The effluent limitation has been carried over to the permit from the current permit and remains applicable. The limitation is based on USEPA's BPJ as there are no applicable effluent limitation guidelines or performance standards for oil and grease. In addition to the numeric effluent limitation, a narrative water quality-based limit for oil and grease is included in the permit.

### B. Applicable Water Quality-based Limits

Pursuant to 40 CFR 122.44(d)(1), water-quality based effluent limits (WQBELs) are required in NPDES permits when the permitting authority determines that a discharge causes, has the reasonable potential to cause, or contributes to an excursion above any water quality standard. Applicable water quality standards are established in GWQS, which incorporate section 304(a) of the CWA water quality criteria. Criteria for priority toxic pollutants designated under section 307(a)(1) of the CWA are based on USEPA's National Recommended Water Quality Criteria. For the purposes of this permit, only criteria for the

protection of aquatic life (acute and chronic) and human health (consumption of organisms) were used.

When determining whether an effluent discharge causes, has the reasonable potential to cause, or contributes to an excursion above narrative or numeric criteria within State (or Territory) water quality standards, the permitting authority uses procedures which account for existing controls on point and non-point sources of pollution, and the variability of the pollutant or parameter in the effluent, the sensitivity of species to toxicity testing, and, where appropriate, dilution of the effluent in the receiving water (40 CFR 122.44(d)). As described in USEPA's *Technical Support Document for Water Quality-based Toxics Control* (TSD; EPA/505/2-9-001), when determining whether or not a discharge causes, has the reasonable potential to cause, or contributes to an excursion above a numeric or narrative water quality criterion for individual toxicants, USEPA can use a variety of factors and information.

USEPA reviewed DMRs with data from mobile treatment plant effluent that was discharged to Outfalls 001-003 from October 2007 through March 2011. Data from these reports were used in part to conduct a reasonable potential analysis for lead, orthophosphate, total suspended solids, benzene, toluene, and ethylbenze as specified in section 3.3 of the TSD. In developing WQBELs, USEPA considered the type of industry, type of receiving water, and designated use (section 3.2 of USEPA's TSD) in the reasonable potential analysis for individual toxicants (section 3.2 of USEPA's TSD). Dilution was not considered in developing the WQBELs for the permit.

The GWQS for Category M-2 (“Good”) and Category M-3 (“Fair”) marine waters are relevant to the reasonable potential analysis and the development of WQBELs for this permit. The WQS for orthophosphate and total suspended solids (TSS) vary for M-2 and M-3 waters; for the other pollutants of concern, the WQS for M-2 and M-3 waters are the same. In order to comply with GWQS, the effluent limitations for Outfall 002 will be consistent with M-3 WQS and the effluent limitations for Outfalls 001, 003, and 004 will be consistent with the M-2 WQS. The previous permit set WQBELs for all outfalls based on M-3 WQS; however, WQBELs for Outfalls 001-003 were made consistent with M-2 WQS in the permit to reflect an updated interpretation of the GWQS.

The results of the reasonable potential analysis used to develop WQBELs are shown in Table 2.

**Table 2. Summary of Reasonable Potential Statistical Analysis:**

| Parameter | Maximum Observed Concentration (mg/L) | *n* | RP Multiplier | Projected Maximum Effluent Concentration (mg/L) | Most Stringent Water Quality Criterion (mg/L) | Statistical Reasonable Potential? |
|---|---|---|---|---|---|---|
| lead | 0.005 | 5 | 2.3 | 0.012 | 0.0081 | YES |
| orthophosphate | 0.03 | 5 | 2.3 | 0.069 | 0.055 | YES |
| benzene | 0.0005 | 1 | 6.2 | 0.0031 | 0.071 | NO |
| ethylbenzene | 0.0005 | 1 | 6.2 | 0.0031 | 29 | NO |
| toluene | 0.0007 | 1 | 6.2 | 0.00434 | 200 | NO |
| TSS | 19 | 1 | 6.2 | 118 | 20 | YES |

## 1. Proposed Water Quality-based Effluent Limits

**pH.** The permit proposes maintaining the instantaneous effluent limitation for pH from the current permit, which requires that pH remain within the range of 6.5 to 8.5 standard units (S.U.) at all times. The pH effluent limitation in the permit is consistent with GWQS for marine waters. Field measurement of pH is required for each discharge.

**Lead**. The permit proposes maintaining the effluent limitation for lead from the current permit, which is based on GWQS for aquatic life protection. The effluent limitation for lead was established in the current permit because lead is commonly found in fuel oils, oily wastewaters, and bilge water.

Effluent data for lead were available for review from six monitoring events between November 2009 and March 2011.The maximum effluent concentration was reported as < 5 µg/L. Based on the reasonable potential analysis procedures outlined in section 3.3 of the TSD, the discharge demonstrates reasonable potential to exceed the most stringent water quality criterion, the Criteria Continuous Concentration (CCC), which is a chronic concentration. The proposed daily maximum effluent limit for lead is 0.210 mg/L, which is the Criteria Maximum Concentration (CMC). The CMC is an acute concentration. The proposed average monthly effluent limitation for lead is 0.0081 mg/L, which is the CCC. Effluent monitoring for lead is required monthly. The effluent limitations are not changed from the current permit.

**Orthophosphate ($PO_4$-P).** The permit proposes maintaining the daily maximum effluent limitation for orthophosphate from the current permit for Outfall 002 of 0.10 mg/L and proposes a more stringent effluent limitation for orthophosphate for Outfalls 001, 003, and 004 of 0.05 mg/L in accordance with the appropriate marine water classifications for Category M-3 and Category M-2, respectively. An effluent limitation for orthophosphate

was established in the permit because bilge water can consist of a mixture of vessel wastewater and leakage from a variety of sources containing phosphorus.

Effluent data for orthophosphate were available for review from five monitoring events between November 2009 and December 2010. Based on the reasonable potential analysis procedures outlined in section 3.3 of the TSD, the discharge demonstrates reasonable potential to exceed the M-2 water quality criterion, although the discharge does not demonstrate reasonable potential to exceed the M-3 water quality criterion. However, because of the nature of the discharge and the limited data set, effluent limitations for orthophosphate will be included for all outfalls in the permit in accordance with GWQS. Effluent monitoring for orthophosphate is required once per month in the permit.

**Total suspended solids.** The current permit does not include an effluent limitation for total suspended solids (TSS). Effluent data from one discharge event in March 2011 were provided with the permit renewal application for review. Based on the reasonable potential analyses procedures outlined in section 3.3 of the TSD, the discharge demonstrates reasonable potential for TSS to exceed water quality criteria for Category M-2 and Category M-3 waters. Effluent limitations for TSS will be included for discharge from all outfalls in the permit in accordance with GWQS. For Outfalls 001, 003, and 004 (Category M-2), the maximum daily effluent limitation for TSS is 20 mg/L. In addition, concentrations of suspended matters at any point shall not be increased by discharge from Outfalls 001, 003, or 004 by more than ten percent (10%) from ambient at any time. For Outfall 002 (Category M-3), the maximum daily effluent limitation for TSS is 40 mg/L. In addition, concentrations of suspended matters at any point shall not be increased by discharge from Outfall 002 by more than twenty-five percent (25%) from ambient at any time. The permit proposes effluent TSS monitoring once per month.

**Turbidity**. The current permit does not include an effluent limitation or require monitoring for turbidity; however, GWQS require that the turbidity at any point not exceed 1.0 NTU over ambient conditions. The permit requires turbidity monitoring for each discharge to ensure compliance with GWQS.

**Copper**. The current permit does not include an effluent limitation or require monitoring for copper; however, copper is an identified pollutant in bilge water. The permit requires monthly monitoring for copper at all outfalls to assess the potential for the pollutant in the discharge to be present at concentrations of concern. If monitoring indicates that copper is discharged at concentrations that exceed GWQS, the permit may be modified to include an effluent limit for copper.

**BTEX (Benzene, Toluene, Ethylbenzene, and Xylene).** The permit maintains the requirement from the current permit to monitor for BTEX once per year without numeric effluent limits. Monitoring requirements were included because BTEX are common components of refined oil products and solvents, which are likely to occur in oily water and bilge water. Effluent data from one discharge event in December 2010 were available for review. Based on the reasonable potential analyses procedures outlined in

section 3.3 of the TSD, the discharge does not demonstrate reasonable potential to exceed water quality criteria; however, annual BTEX monitoring will continue under the permit because limited data were available for review and there remains a potential for these pollutants to be present in the effluent.

## C. Compliance with Federal Anti-Backsliding Provisions

### 1. Technology-based Effluent Limitations

The renewal or reissuance of an existing NPDES permit that contains technology-based effluent limits based on BPJ that are less stringent than those established in the previous permit is prohibited, except as provided in 40 CFR 122.44(k)(l)(i). This is referred to as "anti-backsliding." The permit establishes more stringent technology-based effluent limitations for oil and grease. The permit establishes equally stringent technology-based effluent limitations for oil and grease.

### 2. WQBELs

Section 402(o) of the CWA and 40 CFR 122.44(l) prohibits the renewal or reissuance of an NPDES permit that contains WQBELs less stringent than those established in the current permit, with some exceptions. The permit includes effluent limitations at least as stringent as those contained in the previous permit. The requirements of this permit are consistent with the requirements of 40 CFR 122.44(l) and Guam's antidegradation policy.

## D. Antidegradation Policy

USEPA's antidegradation policy at 40 CFR 131.12 and Section 5101 of the GWQS require that existing water uses and the level of water quality necessary to protect the existing uses be maintained.

As described in this document, the permit establishes effluent limits and monitoring requirements that are designed to ensure that all applicable water quality standards are met. The permit does not include a mixing zone; therefore these limits will apply at the end of pipe without consideration of dilution in the receiving water. The permit is consistent with USEPA and Guam's antidegradation policies.

The Permittee notified USEPA in the permit renewal application that Outfall 001 will be relocated as part of the Port of Guam's (Jose D. Leon Guerrero Commercial Port) planned expansion and modernization. Although the exact date of relocation is unknown, it is likely to occur within the five-year permit cycle. The proposed location of the new outfall, Outfall 004, is approximately 0.60 miles (1 km) west along the shoreline from the current location of Outfall 001. Both Outfall 001 and Outfall 004 discharge to the same segment of Apra Harbor; the receiving water quality at the new outfall and the receiving water quality at the current outfall are therefore Category M-2. The effluent quality should also be similar to the effluent quality that would be discharged from the three current outfalls. As Outfall 004 would be replacing Outfall 001, the effluent quantity would also not change as a result of relocating the outfall. The permit allows discharge from three outfalls, one of which will

potentially be relocated during the permit cycle; however, moving the discharge point from Outfall 001 to Outfall 004 will not result in lowering water quality and is consistent with USEPA and GEPA's antidegradation policies.

## E. Summary of Final Effluent Limitations and Changes from Current Permit.

The permittee shall maintain compliance with all effluent limitations and monitoring requirements specified in Table 3 for the discharge of treated wastewater through Outfalls 001 through 004 to Apra Harbor. Discharge from Outfall 004 is prohibited until Outfall 001 is relocated; at that time, discharge from Outfall 001 is prohibited.

**Table 3. Summary of proposed and previous effluent limitations and monitoring requirements.**

| Parameter | Units | Proposed Effluent Limitations | | Previous Effluent Limitations | |
|---|---|---|---|---|---|
| | | Maximum Daily | Average Monthly | Maximum Daily | Average Monthly |
| **ALL OUTFALLS** | | | | | |
| Flow rate | MGD | (1) | (1) | (1) | (1) |
| pH | S.U. | 6.5-8.5[2] | -- | 6.5-8.5 | -- |
| Turbidity | NTU | (1) | (1) | -- | -- |
| Oil and Grease | mg/L | 15 mg/L | 10 mg/L | 15 mg/L | -- |
| Lead | mg/L | 0.21 | 0.0081 | 0.210 | 0.0081 |
| Copper | mg/L | (1) | (1) | -- | -- |
| BTEX:<br>Benzene<br>Toluene<br>Ethylbenzene<br>Xylene | <br>mg/L<br>mg/L<br>mg/L<br>mg/L | (1) | (1) | (1) | (1) |
| Priority Pollutants | mg/L | (1) | (1) | -- | -- |
| **OUTFALLS 001, 003, and 004** | | | | | |
| TSS | mg/L | 20 | -- | -- | -- |
| Orthophosphate | mg/L | 0.05 | -- | 0.10 | -- |
| **OUTFALL 002** | | | | | |
| TSS | mg/L | 40 | -- | -- | -- |
| Orthophosphate | mg/L | 0.10 | -- | 0.10 | -- |

1. Monitored and reported, but no effluent limit.
2. pH shall remain within the range of 6.5-8.5.

## PART VI: DETERMINATION OF NARRATIVE WATER QUALITY-BASED EFFLUENT LIMITATIONS

The discharge prohibitions Section 5103 of GWQS contains narrative water quality standards that apply to all waters of Guam including but not limited to marine and surface waters. The permit proposes narrative water quality-based effluent limits in the receiving water of Apra Harbor and the Philippine Sea based on narrative GWQS.

## PART VII: MONITORING AND REPORTING REQUIREMENTS

The permit requires the permittee to continue to monitor the effluent for pollutants or parameters with technology-based effluent limits (i.e., oil and grease) and water quality-based effluent limits (i.e., pH, lead, etc.) for the duration of the permit term.

### A. Effluent Monitoring and Reporting

The permit requires the permittee to conduct effluent monitoring to evaluate compliance with the permit conditions. The permittee shall perform all monitoring, sampling, and analyses in accordance with the methods described in the most recent edition of 40 CFR 136, unless otherwise specified in the permit. All monitoring data shall be reported on DMR forms and submitted quarterly, as specified in the permit.

### B. Priority Pollutants Scan

The permit requires the permittee to conduct a priority pollutants scan during the fourth year of the five-year permit term to ensure that the discharge does not contain toxic pollutants in concentrations that may cause a violation of water quality standards. The permittee shall perform all effluent sampling and analyses for the priority toxic pollutants scan in accordance with the methods described in the most recent edition of 40 CFR Part 136, unless otherwise specified in the permit. The method quantitation limit should be below the most stringent applicable water quality criterion. If such method is not available, then the method with the lowest quantitation limit shall be used. 40 CFR 131.36 provides a complete list of priority pollutants.

## Part VIII: SPECIAL CONDITIONS

### A. Authorization to Discharge from Outfalls

The current permit allows discharge from three outfalls: Outfall 001, 002, and 003. The permit allows discharge from the same three outfalls until such a time that the facility moves from its current location at Outfall 001 to its new location at Outfall 004. The permittee must notify EPA and Guam EPA in writing 60 days prior to the facility's relocation from Outfall 001 to Outfall 004 and will confirm the location of Outfall 004. Upon notifying EPA, the

permittee is (1) no longer authorized to discharge from 001 and (2) becomes authorized to discharge from Outfall 004 in accordance with the requirements in this permit.

Guam EPA also identified several permit conditions to be met as outlined in their Clean Water Act Section 401 water quality certification letter, dated September 20, 2011.

### B. Pollution Prevention Plan and Best Management Practices

In accordance with 40 CFR 122.44(k), the permit requires the permittee to develop and implement a Pollution Prevention Plan that includes Best Management Practices (BMPs) that are designed to prevent pollutants from entering Apra Harbor and other surface waters while maintaining, operating, transporting, and/or storing the mobile treatment plant.

## PART IX: OTHER CONSIDERATIONS UNDER FEDERAL LAW

### A. Threatened and Endangered Species

Section 7 of the Endangered Species Act of 1973 (16 U.S.C. § 1536) requires federal agencies to ensure that any action authorized, funded, or carried out by a federal agency does not jeopardize the continued existence of a listed or candidate species, or result in the destruction or adverse modification of its habitat. The following species are listed as endangered or threatened in Guam by the Pacific Islands Fish and Wildlife Services Office:

**Mammals:**
- Bat, little Mariana fruit (*Pteropus tokudae*)
- Bat, Mariana fruit (*Pteropus mariannus mariannus*)

**Birds:**
- Crow, Mariana (aga) (*Corvus kubaryi*)
- Kingfisher, Guam Micronesian (*Halcyon cinnamomina cinnamomina*)
- Moorhen, Mariana common (*Gallinula chloropus guami*)
- Rail, Guam except Rota (*Rallus owstoni*)
- Swiftlet, Mariana gray (*Aerodramus vanikornsis bartschi*)
- White-eye, bridled *(Zosterops conspicillatus conspicillatus)*

**Sea Turtles:**
- Sea turtle, hawksbill (*Eretmochelys imbricata*)
- Sea turtle, green except where endangered (*Chelonia mydas*)
- Sea turtle, leatherback (*Dermochelys coriacea*)
- Sea turtle, loggerhead (*Caretta caretta*)

**Plants:**
- Iagu, Hayun (*Serianthes nelsonii*)

Of the two mammals and six birds, none have geographic nexus, other than speculative incidental contact, with the area of discharge to Apra Harbor and the Philippine Sea. Of the four sea turtles, the leatherback sea turtle and the loggerhead sea turtle are not known to occur in Guam; however, the green sea turtle and the hawksbill sea turtle may be present near the discharge area.

Limited information is available on threats to the turtle population in Guam. The harvest of green sea turtles and their eggs on land is occurring in Guam and may be occurring to hawksbills as well. Other factors besides harvest affecting the hawksbill and green sea turtle populations in Guam are habitat loss, problems associated with urbanization and expanding tourism, and potentially incidental take by fisheries. Additionally, sedimentation from land development has damaged Guam's coral reefs, and presumably, food sources for turtles.

Water quality could potentially affect hawksbill and green sea turtles via absorption of contaminants or direct ingestion of contaminated water or prey. The effluent discharged under this permit would consist of bilge water, which would be treated by the mobile treatment facility prior to discharge to Apra Harbor and the Philippine Sea. Monitoring data from the mobile treatment facility have shown no exceedances of effluent limitations or water quality standards during the previous five-year permitting period (see Table 1). The technology and water quality-based effluent limits in the permit should not result in acute or chronic exposures of contaminants that would significantly affect the hawksbill turtle or green sea turtle. These effluent limits also are not likely to affect the availability or distribution of prey species or produce undesirable aquatic life within Apra Harbor that may impact hawksbill or green sea turtles. As previously described, numerical and narrative water quality-based effluent limits and narrative water quality standards proposed in the permit are based on Guam water quality standards for the protection of aquatic life uses. Additionally, technology-based effluent limits are based on best professional judgment and are expected to provide protection of aquatic life uses.

EPA has determined that reissuance of the NPDES permit for Unitek will have no affect on hawksbill and green sea turtles. EPA has provided the U.S. Fish and Wildlife Service and NMFS (collectively referred to as “the Services”) with copies of this fact sheet and the permit during the public notice period. No comments were received from the Services during the public notice period.

## B. Coastal Zones

The Coastal Zone Management Act (CZMA) requires that federal activities and licenses, including federally permitted activities, must be consistent with an approved state Coastal Management Plan (CZMA Sections 307(c)(1) through (3)). Section 307(c) of the CZMA and implementing regulations at 40 CFR Part 930 prohibit USEPA from issuing a permit for an activity affecting land or water use in the coastal zone until the applicant certifies that the proposed activity complies with the state (or Territory) Coastal Zone Management program, and the state (or Territory) or its designated agency concurs with the certification.

USEPA has provided copies of the draft permit and this fact sheet to Guam Bureau of Statistics and Plans for review and comment during the public notice period. On Nov. 30, 2011, USEPA received communications and approval from Guam Bureau of Statistics and Plans for a consistency certification to gain coverage under the permit.

## C. Essential Fish Habitat

The 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act (MSA) set forth a number of new mandates for the National Marine Fisheries Service, regional fishery management councils and other federal agencies to identify and protect important marine and anadromous fish species and habitat. The MSA requires federal agencies to make a determination on federal actions that may adversely impact Essential Fish Habitat (EFH) in marine environments. Apra Harbor connects to the Philippine Sea and is considered a marine ecosystem, thus federal requirements of the MSA apply to USEPA's proposed action to issue an NPDES permit to discharge into Apra Harbor. Therefore, USEPA is required to make a determination on whether this action may adversely impact EFH, as defined under the MSA. Given that effluent limitations in the permit are written to meet water quality standards established to be protective of applicable aquatic life uses and the discharge flow (volume and frequency) was de minimis in nature over the previous permit cycle, USEPA has determined there will be no adverse impacts to EFH from the issuance of the NPDES permit for Unitek's mobile treatment plant.

USEPA has sent a copy of the permit to NMFS for review. No comments were received from NMFS during the public notice period.

### D. Impact to National Historic Properties

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effect of their undertakings on historic properties either listed on, or eligible for listing on, the National Register of Historic Places. Pursuant to federal requirements of NHPA and 36 CFR 800.3(a)(1), USEPA has determined the permit does not have the potential to affect any historic or cultural properties.

## PART X: REFERENCES

[GEPA] Guam Environmental Protection Agency. 2010. *Guam 2010 Integrated Report, Clean Water Act Sections 303(d), 305(b) and 314*. Barrigada (GU): GEPA.

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