

US EPA ARCHIVE DOCUMENT

Partnerships



Hawai'i State Governor Linda Lingle hosts environmental officials from the Outer Islands

In Region 9 we are incorporating revitalization into each of our cleanup programs. Building partnerships with local, state, and other federal agencies is a high priority for Region 9 and an important step in implementing and developing site reuse.

Government agencies are collaborating to address environmental and revitalization issues unique to the Pacific Islands. The inaugural meeting of the Pacific Islands Brownfields Response Team was held in Honolulu in February, 2008. Representatives from Guam, Commonwealth of the Northern Mariana Islands, American Samoa, and Hawaii agreed to share knowledge, expertise and resources about brownfields response programs and cleanup of contaminated property. The Team also agreed to develop uniform Environmental Screening Levels (ESLs) across the Islands. These ESLs will be used to evaluate whether cleanups are required and should provide Pacific-wide standards for lenders and developers.

"The Conference offers an excellent opportunity to unite as a region and tackle problems and issues together."

- Roland Gutierrez, Guam EPA

Brownfields

A.B. Won Pat International Airport
Tamuning and Barrigada,
Guam



The main terminal was completed in 1998. The façade represents a latte stone, ancient stone pillars built by Chamorro people, and found throughout the Mariana Islands

Background: The US Navy transferred over 1800 acres of the former Agana Naval Air Station to the A.B. Won Pat International Airport Authority in 2000. Under Base Reuse and Closure authority, the US Navy previously cleaned up contamination to industrial levels, and placed land use restrictions on a number of parcels. The airport wanted to lease these parcels for airport-related purposes. Private companies were hesitant to enter into long-term leases, and spend significant funds on facility improvements to properties with restricted uses. In addition, undeveloped land was available nearby without any of these land use restrictions.

In 2006, the A.B. Won Pat International Airport received three EPA Brownfields cleanup grants to address residual metals contamination at three separate locations within the airport property: a former aircraft graveyard, a former aircraft maintenance facility, and a large drainage facility. The cleanup of the aircraft graveyard and the maintenance facility will allow these parcels to be leased to air cargo handling or similar operations without restrictions. The cleanup of the drainage facility will remove a threat from contaminated runoff to Guam's sole source aquifer.

Summary: Cleanup of these parcels will begin in 2008. During the cleanup, soil samples will be taken during excavation and analyzed. Metals analyses are being performed using an X-Ray Fluorescence (XRF) Meter, a portable field device that provides quick turnaround results. Additional soil samples are being sent to the laboratory for confirmation and quality assurance purposes.

Reuse Facts:

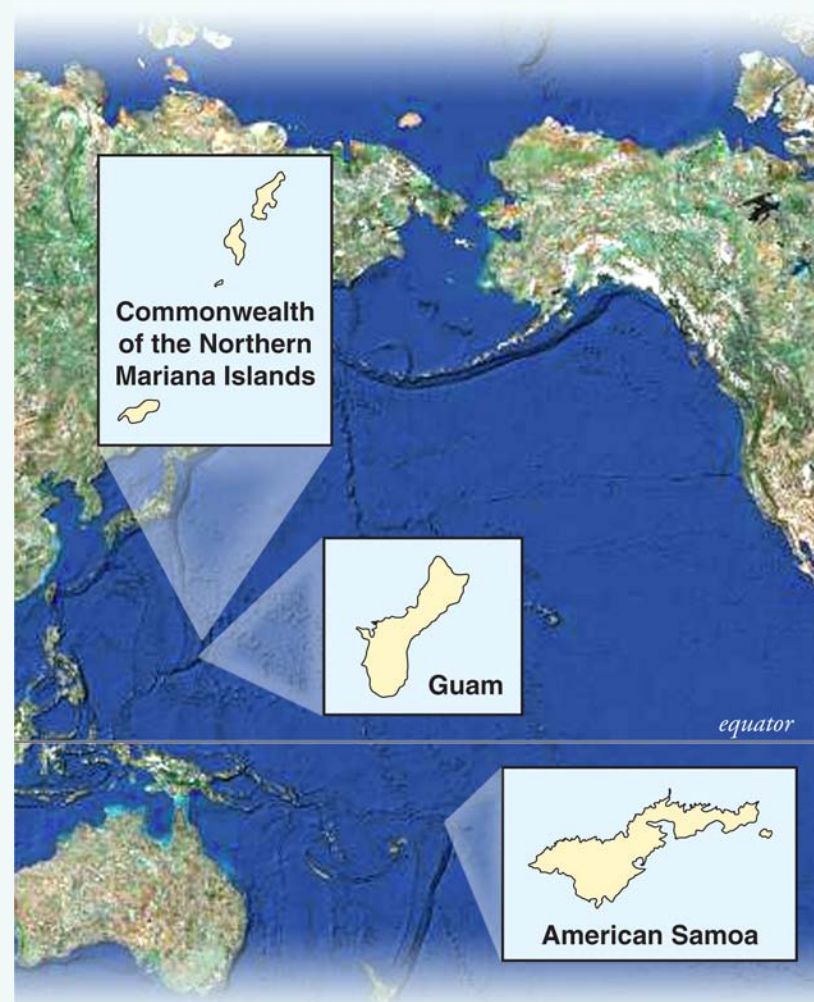
- A half acre (25,000 square feet) of developable land will be made available for commercial lease through the cleanup action. The airport has the potential to generate up to \$90,000 in annual lease revenues when the cleanups are completed.
- Approximately 2,500 yards of contaminated soils will be reused as base material during construction of a new airport perimeter road. This on-airport disposal/reuse option provides a safe cost-effective alternative to off-site transportation and disposal. The soils will be covered with gravel and encased in asphalt, eliminating potential exposure. Perpetual maintenance is ensured by the airport's need to provide security patrols and operate firefighting vehicles on these roadways.
- The airport currently provides more than 2000 jobs to local residents. Cleanup and reuse of these parcels will provide additional employment opportunities to the people of Guam.

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LAND REVITALIZATION IN THE OUTER PACIFIC ISLANDS

US EPA Cleanup Programs at Work



LAND REVITALIZATION

Restoring land for America's communities



U. S. Environmental Protection Agency
Region 9
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Introduction

The Vision: to restore the nation's contaminated land resources and enable communities to safely return these properties to beneficial economic, ecological, and societal uses.

Revitalization - putting formerly contaminated land to use - is a priority for all of EPA's cleanup programs. Whether the cleanup is performed as a Superfund removal action, remedial action, RCRA corrective action, a Underground Storage Tanks (UST) cleanup action, or a Brownfields Grant, the end-use of the land is always kept in mind.

A focus on land revitalization helps to:

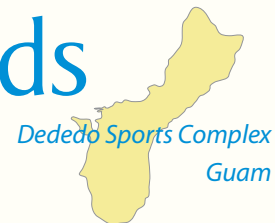
- foster more efficient cleanups;
- bring jobs to communities;
- expand the local tax base;
- drive community rejuvenation; and
- expand recreational and wildlife areas

Numerous obstacles hinder the expansion and development of useable lands in the outer Pacific Islands. These obstacles - distance, topography, isolation, and limited resources - are often coupled with unique historical challenges and a growing demand for development. By working cooperatively with Commonwealth and Territorial governments and other federal agencies, EPA has been able to address these issues to meet the needs of local island communities while protecting human health and the natural environment.



Raising awareness of UXO dangers helped improve public safety at the War in the Pacific Memorial Park, Asan Beach, Guam.

Brownfields



Dededo Sports Complex
Guam



Tire pile before site remediation

Background: In December 2002, Guam was hit by a super typhoon causing approximately \$700 million in damages. The super typhoon caused wind, rain and flooding damage to properties across the entire island resulting in extended power and water

outages. In the aftermath, government agencies set up several temporary collection stations for residents to bring their damaged property, such as white goods, construction debris, green waste, and more than 5,000 motor vehicle tires. Hazardous waste was also brought by residents to one of the collections stations located in the Village of Dededo. While FEMA funded most of the waste disposal, tires and potentially contaminated soil was left behind. The site is part of over 150 acres of undeveloped village land managed by the Guam Department of Parks and Recreation (GDPR) and is a center of recreational activity for Island residents.

Summary: With grants from US EPA, Guam EPA conducted a Phase I site assessment of the property in April 2008, a first step in the redevelopment process. GDPR created development plans to convert some of the property into a first-class sports complex. These facilities will serve residents and the recreational needs of 10,000+ US soldiers to be relocated to Guam. The tires will be processed and sent to Korea for incineration in a waste-to-energy plant. Steel belts from the tires will be recycled in the Asian steel market. Soils will be investigated prior to development.

Reuse Facts:

- 20 acres of formerly unusable land will be put into use.
- Four baseball and softball fields and an outdoor swimming pool will be constructed on the site.



Dededo Sports Complex rendition

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Brownfields & RCRA

Resource Conservation and Recovery Act

Department of Public Lands
Saipan, CNMI



UXO is found throughout CNMI

Background: World War II (WWII) military occupation and warfare left millions of pounds of Unexploded Ordnance (UXO) in the Commonwealth of the Northern Mariana Islands (CNMI). This UXO is a direct threat to public health since it

may detonate if disturbed, and may also threaten soil, surface water and groundwater. The CNMI Dept. of Environmental Quality has located numerous areas on the Islands of Saipan, Tinian, and Rota that require assessment and clearance.

Summary: Starting in 2006, EPA awarded Brownfields assessment and cleanup grants to the CNMI Dept. of Public Lands. They are currently clearing UXO at the Marpi Village Homestead site on the north end of Saipan. Both CNMI and EPA are consulting with the US Fish & Wildlife Service regarding potential endangered species impacts from the cleanup and development. Several endangered birds and the Mariana fruit bat have been observed in the area. Biological surveys are being conducted, and conservation measures are being identified to avoid and minimize these impacts. CNMI has set aside a large area as a mitigation bank for the future survival of these unique species. The Agency for Toxic Substances & Disease Registry is also assisting CNMI with a health monitoring project to document the dangers of UXO, and provide public education and outreach about these hazards. EPA has finalized a unique agreement under the Resource Conservation and Recovery Act (RCRA) with the CNMI Dept. of Public Safety to safely store and treat UXO at the Marpi Point open detonation area. Previously, EPA issued emergency permits for this activity, but now CNMI will have the authority to quickly and safely store and dispose of this hazardous waste.

Reuse Facts:

- 153 acres on Saipan are being cleared of WWII UXO.
- 500 new homesteads are being created for local residents.
- Safe disposal of UXO, collected across the entire island of Saipan, will allow for continued redevelopment elsewhere.



UXO is located using electromagnetic detection equipment

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Removal



Tanapag Tank Removal
Saipan, CNMI



Response teams remove hazardous storage tank

Background: Tanapag Tank Farm was built by the US military during World War II (WWII) to provide fuel for naval ships and aircraft. Prior to WWII, the area was a privately owned residential area. Post-WWII, the nearly 100 acre site continued to

be used for refueling purposes until the 1950s when the operations ceased and the site was abandoned. While aircraft fuels were removed from some of the tanks, residual heavy oils were left in other tanks. After the war, Tanapag Village was returned to local control, but the tanks were left where homes are located. Consequently, the US Army Corps of Engineers (USACE) was tasked to assess the hazards and contamination associated with the former tank farm. Years of neglect and weathering had caused many of the tanks to collapse, resulting in oil spills and soil contamination in close proximity to residences.

Summary: In 2006, the EPA's Emergency Response Team, in conjunction with the CNMI Division of Environmental Quality (DEQ) and USACE, removed six aboveground oil storage tanks, oil/sludge, and contaminated water and soil from the former Tank Farm. With an emphasis placed on minimizing harm to the surrounding natural environment, over 2,300 tons of contaminated soil and 16,710 gallons of treated water were removed. Over 140 tons of disassembled scrap metal from the tanks were sent for recycling. CNMI DEQ worked side by side with EPA, expanding their field and laboratory experience and increasing their environmental programs capacity.

Reuse Facts:

- Six properties were made safe for residential and commercial use.
- Two of the properties are currently being used.
- Four remaining properties are available.



Contaminated soil removal from site

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Removal



Scrap Metal Yard Remediation
Tafuna Village, Tutuila,
American Samoa



Cleanup crews remove scrap metal from yard

Background: For several decades, the seven acre Tafuna Scrap Metal Yard (TSMY) has served as a central depository for scrap metal waste on the island of Tutuila in American Samoa. Other waste commodities, such

as tires, machinery, batteries, and ammonia cylinders have also accumulated, posing a significant threat to human health and the environment. Managed by the American Samoa Power Authority (ASPA), the scrap metal yard accepts metal waste from the Territory agencies, local businesses, and the general public. The TSMY property is located within the boundary of the Pago Pago International Airport and has been leased to the Department of Port Administration (DPA) from the American Samoan Government.

Summary: In 2006, EPA conducted an assessment of the property to determine how to approach the removal of on-site waste materials. After results from EPA's assessments were reviewed, in 2007 ASPA entered into a contract with Good Year Corporation Ltd to begin to remove and recycle all waste collected on the property. To date, 6,000 to 8,000 tons of scrap metal have been removed. By July 2009 over 48,800 tons of recycled materials are expected to be containerized and shipped off American Samoa.

Reuse Facts:

- Seven acres of land will be put into reuse.
- Site to be used as part of a \$20 million DPA Airport Division plan for improvements to Pago Pago Airport to meet the island's transportation, infrastructure, tourism, and economic needs.



Aerial view of scrap metal site

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