LOLO M. MOLIGA
Governor

LEMANU P. MAUGA
Lt. Governor

AMERICAN SAMOA ENVIRONMENTAL PROTECTION AGENCY
P.O. Box PPA
Pago Pago, American Samoa 96799

AMEKO PATO
Director

Phone: (684) 633-2304
Admin. Fax: (684) 633-5715
Programs Fax: (684) 633-5801

Information Release Authorization Form

Tuesday, November 05, 2013

- ☑ Newspapers (Advertisement/Public Notice/Press Release)
- ☑ Radio Stations
- ☑ Televisions

Attached is an Information Release issued by our office (AS-EPA). We would like to ask your assistance in making this information available to the public immediately, via your broadcasts or news publications. For additional information, kindly contact the AS-EPA Director, Ameko Pato or Deputy Director, Faamao Asalele, or Tumau Lokeni, Environmental Awareness & Education Program Manager at 633-2304.

Fa'afetai lava.

- ☑ Governor's Office, ASG Weekly
- ☑ Director, Department of Public Information (KVZK-TV)
- ☑ Samoa News
- ☑ Samoa Post
- ☑ KHJ FM 93.1 Radio Station
- ☑ WVUV FM 103.1 Radio Station
- ☑ KSBS FM 92.1 Radio Station
- ☑ KNWJ FM 104.7 Radio Station

Title/Heading:

1. "AS-EPA offers a moderate and historical perspective on the Harbor algal bloom"

Approved by: _____ Date: 05 NOV 2013

Ameko Pato, Director
American Samoa – EPA

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PRESS RELEASE

AS-EPA offers a moderate and historical perspective on the Harbor algal bloom

The recent bloom of red algae in the Harbor has generated concern and commentary from local residents and government, and there has been outreach to federal agencies for explanation or action, as well. The American Samoa EPA wishes to offer information from their technical files and their institutional memory as a moderate response to the red-brown waters of the Harbor.

Since 2000, AS-EPA has observed four significant algal blooms in Pago Pago Harbor, including this 2013 event. These blooms have varied in extent and duration. Around 2003, AS-EPA investigated a "red-tide" that extended from the Inner Harbor to Onesosopo, which lasted about two weeks. In 2005, there was a massive bloom that AS-EPA personnel witnessed from aircraft that extended from Pago Pago to beyond Manu'a, which dissipated within a month. A 2007 bloom was documented in a USDA sponsored paper as extending not far beyond the yachts moored at the Harbor's head and lasting for about two months. The fervor around the 2013 event is still fresh in our memories.

The occurrence of red tides confined only to the Inner Harbor might support an argument that blooms are solely related to a pollution source, either chronic or acute, and definitely of human origin. But the occurrence of red tides beyond the confines of the Inner Harbor, out to Onesosopo and especially in the open sea between Tutuila and Ta'u, Manu'a, such as occurred in 2003 and 2005, strongly suggests that blooms are related to a natural phenomenon. The natural occurrence of red tides and other algal blooms are documented around the world over many years. Human activities on the land that result in pollution inputs in places where algal blooms would naturally occur anyway, would likely increase the frequency and duration of blooms, and this may be the more moderate explanation of the recurring red tides in Pago Pago Harbor.

Pollution from leaking septic tanks, piggeries, cesspools, laundry discharges, outhouses, and direct discharge toilets, carried to the harbor by streams, certainly create conditions where algal blooms are more likely to occur in the Inner Harbor. These pollution sources are chronic in the villages surrounding the Harbor, and are the focus of regulatory efforts by DOH, AS-EPA,

ASCMP, and the PNRS Board, and also a focus of public education and outreach by non-regulatory and non-governmental groups.

AS-EPA Acting Director Faamao Asalele Jr. stated, "To blame the 2013 red tide on a one-time pollution "dump" by an unknown wrong-doer is not supported by historical observations. Blaming the application of excessive fertilizer on the soccer field in Pago Pago as the cause of the 2007 bloom and as the cause of the 2013 bloom as proposed by some sources of information today, appears questionable when you consider that the soccer field did not exist during the 2003 and 2005 red tides."

Chronic pollution inputs to the Harbor from village sources are more likely a "trigger" of increased occurrences and duration of red tides in a place where algal blooms are likely to occur from natural causes anyway. The Harbor is a semi-enclosed water body, with progressively limited exchange of water from the Harbor mouth to the Inner Harbor. The US Army Corps of Engineers completed a study in the late 1970s that describes water retention time in the Inner Harbor at around 30 days, 15 days in the Middle Harbor around Aua, and about 2 days at the Harbor entrance. The limited exchange of water in the "Inner Harbor" might make this water body susceptible to naturally occurring algal blooms, and vulnerable to increased frequency and duration of red tides due to chronic inputs of pollution from the surrounding villages.

Many of the pollution discharges to the Harbor waters are because there are inadequate public sewer facilities to collect and treat waste discharges. To address this deficiency in infrastructure, AS-EPA prepared a wastewater facilities plan in 2007 to provide ASPA with a technical basis for public sewer construction along the east side of the Harbor, and for improvements at the Utulei wastewater treatment plant. Today, ASPA is currently implementing the sewer system upgrade project in phases. Pollution inputs to the Harbor can also be reduced by a change in land use practices, clean up of waste stockpiles, and overall better management of wastes in the villages. These issues are being addressed by on-going government programs.

Mr. Asalele further stated, "The search for a scapegoat individual or entity to blame for the 2013 red tide is not supported by the evidence or the circumstances of the Harbor. This line of thinking only serves to distract us from the reality that improving waste management in the villages is required to improve Harbor water quality."