

REMOVAL SITE EVALUATION AT THE OROTE LANDFILL SITE NAVACTS, Guam

Fact Sheet No. 1
January 1996

This Fact Sheet describes the ongoing investigation of potential contamination at Naval Activities (NAVACTS) Guam under the Installation Restoration (IR) Program. This is one in a series of informational flyers that will be issued periodically throughout the investigative process.

INTRODUCTION

This fact sheet provides updated information regarding the Removal Site Evaluation (RSE) that was conducted during July 1995 at Orote Landfill Site, NAVACTS Guam. The previous fact sheet dated December 1994 discussed the activities of the Draft Remedial Investigation (RI) conducted as part of the Navy's Installation Restoration (IR) program. The Draft RI concluded that cleanup was necessary because of contamination of soils at the site and recommended that an RSE be conducted prior to planning a removal action. The purpose of the RSE was to provide additional information in addition to the RI that will aid in the selection and design of removal action at the site.

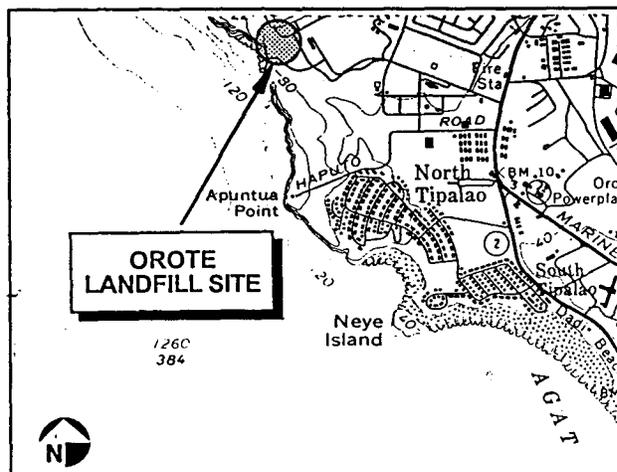


Figure 1. Location Map

BACKGROUND

The Orote Landfill Site occupies approximately 9.4 acres of land within NAVACTS on the southeastern portion of Orote Peninsula (Figure 1). The Orote Landfill was used for disposal of residential, industrial, and construction wastes from approximately 1944 to 1969. The face of the cliff that surrounds the landfill (Figure 2) was reportedly the most active disposal area. Flammable material was burned, and the ashes were buried on the cliff above the nearby cove. Nonflammable materials were either buried behind the cliff or bulldozed over the cliff onto the beach. The beach currently contains a large amount of rusted metal and other debris.

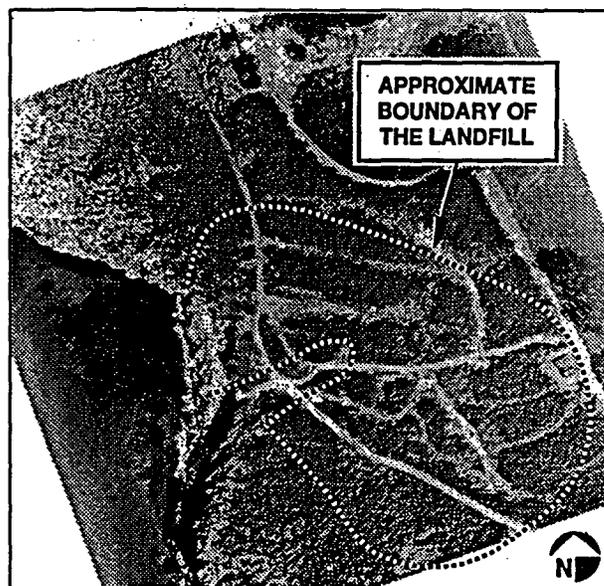


Figure 2. Aerial photograph of site showing the approximate boundary of the landfill.

Previous studies indicated the presence of two disposal areas, one just west of the cliff and beach and the other farther inland. A review of available aerial photographs and discussions with several U.S. Navy personnel suggest that the cliff and beach as well as the burning/disposal area inland, were used throughout the period of operation.

REMOVAL SITE EVALUATION RESULTS

An RSE was conducted at Orote Landfill Site. The RSE report describing the investigation was released in December 1995. The goals of the RSE were to (1) fully define the area of the landfill, (2) install additional ground-water monitoring wells including an upgradient well, and (3) further characterize the effect that the ground water at the site has on the ecology of the bordering ocean environment. The RSE found that the area of the Orote Landfill is 9.4 acres and has a volume of 87 acre-feet. The report also concluded that although the ground water may be slightly impacted by the landfill, the ground water does not have a significant effect on the ecology of the marine areas bordering the site. The information reported in the RSE will be used by planners and engineers to determine an appropriate removal action alternative at the landfill that is detailed in a document called an Engineering Evaluation/Cost Analysis (EE/CA).

FUTURE ACTIVITIES

The first step in the design of a removal action is a process of performing a study known as an Engineering Evaluations/Cost Analysis (EE/CA). The purpose of an EE/CA is to analyze different alternatives for remediating contaminated sites in order to select the best alternative. The EE/CA surveyed potential clean-up technologies and approaches and has proposed clean-up alternatives for analysis for Orote Landfill Site. The analysis of alternatives in the EE/CA for Orote Landfill Site were based on the information obtained from the draft RI and the draft RSE. The proposed alternatives for the site are as follows:

- placing a fence around the boundary of the landfill
- installation of a landfill cap
- complete removal of waste from the site
- cliff stabilization
- groundwater monitoring
- reestablish habitat

The EE/CA is currently under development and no alternatives have been recommended at this time.

After comments on the Draft RSE are received from the public and regulatory agencies, the RSE report will be finalized and reissued. Based on the information from the RI and the RSE, the Draft EE/CA will be prepared. An Action Memorandum will then be prepared, which will summarize the findings of the EE/CA and describe the clean-up alternative that is recommended for implementation at each site. After implementation details are finalized, a design package will be prepared for the selected alternatives at each site. Once the selected alternatives are implemented, clean-up activities will begin.

COMMUNITY INVOLVEMENT

This fact sheet is part of the Community Relations Program for the RI, RSE, and clean-up activities at Orote Landfill Site. This effort is intended to keep you informed of planned or ongoing activities at each site.

FOR MORE INFORMATION

For any questions, please contact the U.S. Naval Forces Marianas (COMNAVMARIANAS) at (671) 349-5241. The complete Draft RSE document is available for review at the information repository located at Nieves M Flores Memorial Library at Agana, Guam.
