



Highlights of [GAO-09-653](#), a report to congressional requesters

## Why GAO Did This Study

The Department of Defense's (DOD) plans to increase the U.S. military presence on Guam by more than two-and-a-half times the island's current military population of 15,000 by 2020. To keep pace with this growth, DOD has determined that substantial upgrades to the island's existing utilities infrastructure are required for electric power, potable water, wastewater treatment, and solid waste disposal to meet future utility needs.

GAO was asked to examine (1) the condition and capacity of the existing utilities' infrastructure on Guam, the military's estimated utility requirements, and potential solutions for meeting the increased demand on the island's utility systems as well as (2) the extent that DOD has developed a comprehensive plan to address any challenges it faces in its planning for new utility systems. GAO reviewed and analyzed plans and studies within DOD, the services, and several stakeholders on implementing new utility services associated with the Guam military buildup.

## What GAO Recommends

GAO recommends that DOD develop a comprehensive utility plan for Guam, in cooperation with the government of Guam, to strengthen DOD's management of its utility planning efforts and provide additional transparency among its stakeholders. DOD agreed with our recommendation.

To view the full product, including the scope and methodology, [click on GAO-09-653](#). For more information, contact Brian J. Lepore, 202-512-4523, [leporeb@gao.gov](mailto:leporeb@gao.gov).

## DEFENSE INFRASTRUCTURE

### Planning Challenges Could Increase Risks for DOD in Providing Utility Services When Needed to Support the Military Buildup on Guam

#### What GAO Found

Existing utility systems on Guam are currently near or at their maximum capacities and will require significant enhancements to meet anticipated demands of the expanding U.S. military population resulting from DOD's planned buildup. Over the past 2 years, the Navy's Joint Guam Program Office, which is leading DOD's utility planning efforts in cooperation with the Naval Facilities Engineering Command, has conducted several studies to identify and evaluate possible long-term solutions and establish an implementation approach. Currently, DOD is determining its preferred solutions that will likely result in increasing (1) islandwide electric power generation capacity by 31 percent, (2) Navy potable water production by 89 percent, and (3) wastewater collection and treatment capacity at a Guam Waterworks Authority plant by 50 percent. In addition, DOD plans to use the government of Guam's new landfill to dispose of all DOD solid waste, which is likely to increase by 230 percent as a result of the buildup. DOD also determined that certain operating inefficiencies, outstanding deficiencies, and compliance issues with certain environmental regulations in the existing infrastructure—especially related to those systems operated by Guam utility authorities—would need to be addressed to implement some of its potential solutions.

While the Navy's Joint Guam Program Office has made progress in identifying requirements and solutions to meet future demands, it has not developed a comprehensive utility plan, which would be mutually developed with the government of Guam. Our prior work has shown that use of a comprehensive plan is an important planning tool for an organization to increase transparency and improve management of its efforts to achieve overall objectives. Such a plan generally would include information for stakeholders on schedules, costs, financing, goals and objectives, projects and activities, responsibilities, potential risks, challenges, and other factors that could affect implementation. Several challenges could adversely affect future planning efforts. First, the condition of existing Guam utility systems can affect implementation of some potential solutions. Second, the involvement of a number of diverse stakeholders complicates the planning process by requiring continuous coordination and sharing of information as plans are developed and implemented. Third, sources of funding have not been identified although DOD's cost estimates indicate that the total cost for utilities is likely to exceed the amount of utility funding that the government of Japan has agreed to commit. Fourth, the use of a special purpose entity (utilities service provider) approach to provide new utility services has not been previously used by DOD for utility construction, and DOD may currently lack the statutory authority to implement certain aspects of this approach thus potentially increasing uncertainty about financing, stakeholder involvement, and schedules. Lastly, time frames for completing the buildup of utilities to meet DOD's scheduled increase of military presence on Guam provide little flexibility to accommodate any major adjustments in milestone dates. Without a comprehensive plan, DOD lacks an important planning tool to address these challenges and provide consistent, detailed information to its stakeholders.