

HEADQUARTERS, MARINE CORPS BASE, CAMP LEJEUNE

ACTION BRIEF

Date: 1 MAR 1985

Staff Section: Assistant Chief of Staff, Facilities

Subj: ALTERNATIVES FOR PROVIDING WATER TO THE TARAWA TERRACE AREA

Problem: Because of the recent shutdown of two water wells in the Tarawa Terrace water system due to the presence of Volatile Organic Chemicals (VOC) in the raw water, sufficient well capacity is not expected to be available to satisfy water demand this summer. A shortage of 300,000 gpd (gallons per day) is expected this spring/summer if the present situation remains unchanged.

Background/Discussion: The following alternatives are listed as possible options for addressing the problem.

a. Alternative 1: New well, Tarawa Terrace. Estimated cost: \$80,000.

Advantages: Increase capacity by 100 gpm to 250 gpm (gallons per minute).

Disadvantages: Based on recent new wells and test wells in Tarawa Terrace, water in significant quantities is difficult to locate (e.g., well TT-25 is producing approximately 100 gpm although designed for 150 gpm. New well would be abandoned after completion of expansion of Holcomb Blvd plant in approximately two years. Wells in Montford Point area are high in iron content. Construction of a new well by spring is questionable but could possibly be completed.

b. Alternative 2: Transport water via tanker trucks from other Camp Lejeune plants. Assume hauling 300,000 gpd with 5,000 gallon tankers which would require 60 trips per day. Assuming a tanker can make 12 trips per day, a total of five tanker trucks would be required. Estimated cost: \$2,000 per day.

Advantages: Timely method of providing water.

Disadvantages: Logistics of loading/unloading/transporting; nonavailability of trucks.

c. Alternative 3: Tap to City of Jacksonville water line on Lejeune Blvd. Informal discussion with city officials indicates they probably could not provide 300,000 gpd at this time. No costs for taps or rates were quoted. A water line under Lejeune Blvd would have to be constructed. Estimated cost: Unknown.

Advantages: Timely response to problem, if available.

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Disadvantages: Problems associated with connecting separate systems. Chance of requests for reciprocating favors from the City of Jacksonville would increase. VOCs in the city system could be higher than we are now facing.

d. Alternative 4: Change schedule of Holcomb Blvd plant contract to construct the water line to Tarawa Terrace immediately. The expansion of the Holcomb Blvd plant includes running a water line to TT and Camp Johnson. Contract has been awarded. Estimated cost: Unknown (additional cost to contractor).

Advantages: No unnecessary construction would be required.

Disadvantages: Serious doubts exist that contractor would complete line prior to high usage months. Line serving Tarawa Terrace is a 16" submerged line across Northeast Creek.

e. Alternative 5: Construct 8" water line from Brewster Blvd to Tarawa Terrace. Line could be tied to the railroad trestle to cross Northeast Creek. Estimated cost: \$75,000.

Advantages: Timely response to problem.

Disadvantages: Problems related to material procurement and construction could surface. The temporary line may require State approval. Pressures and elevations of the two systems have been investigated to determine feasibility.

f. Alternative 6: Modify Tarawa Terrace plant to include aeration or granular activated carbon (GAC) capable of removing VOCs. Estimated cost: \$300,000.

Advantages: Removal of VOCs would eliminate the problem.

Disadvantages: The modifications could not be made in the time frame required. The Tarawa Terrace plant will be discontinued upon completion of Holcomb Blvd plant expansion.

g. Alternative 7: Turn on contaminated wells that have been shut down if required to maintain adequate water levels. Estimated cost: None.

Advantages: Adequate quantity of water could be provided.

Disadvantages: Although no maximum contaminate levels have been set for VOCs and no regulations presently prevent water containing VOCs, the potential health hazards must be weighed against the need and cost of providing water from other sources.

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Recommended Action: Alternative 5, construct 8" line from Brewster Blvd to Tarawa Terrace. Preliminary engineering study indicates this would provide approximately 250 gpm (360,000 gpd).

Advantages:

- (1) Timely - target date for completion 1 June 1985.
- (2) Availability of water - can draw from Holcomb Blvd and Hadnot Point system.
- (3) Auxiliary line for future use during repair/maintenance of other system.
- (4) Minimum cost.
- (5) Potential future use to return raw water from Tarawa Terrace wells.

Very respectfully,


M. G. LILLEY
AC/S, Facilities

Decision on Recommended Action:

CS Concur _____ Nonconcur _____

CG Approved _____ Disapproved _____

Need more info as we discussed. JG

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