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HISTORICAL RECONSTRUCTION OF WATER RESOURCES SUMMARY OF FLOW METER
ISSUES MCB CAMP LEJEUNE NC
11/15/2004
MCB CAMP LEJEUNE

Historical Reconstruction of Water Resources at Camp Lejeune, North Carolina

SUMMARY OF FLOW METER ISSUES

Background

- A 1999 Department of the Navy Conservation Study for MCB Camp Lejeune documented an unaccounted for quantity of produced water of approximately 30% (700,000 gallons per day).
- The only metered water is the total water produced and delivered at the water treatment plants.
- Water for all residential use, most commercial purposes and industrial needs (except steam plants) at the point of consumption or use is not currently metered; nor has it been metered in the past.

Rationale for Installing Flow Meters

- To quantify and estimate spatial distribution of exposure at address-specific locations, household consumption information, based on metered data, is required—estimates based on 30% unaccounted for water use are unacceptable.
- Average consumption for specified residential and other areas can be quantified and recorded by installing bi-directional, recording and totalizing flow meters at strategically placed locations,.
- Using recorded flow meter data will assist in calibrating and “fine-tuning” the water-distribution system models needed as part of the epidemiologic case-control study.

Timelines and Costs

- The discussion of flow meter need occurred in a meeting on 28 July 2004 at MCB Camp Lejeune. Present were ATSDR staff, EMD staff from Camp Lejeune, and Mr. Craig Sakai, Head, Environmental Management Program, Headquarters, USMC.
- Agreement at the meeting was for ATSDR to proceed with meter location design and EMD staff at Camp Lejeune would solicit contractors and bids for meter installation. Headquarters, USMC agreed to fund the purchase of the flow meters
- During week of 23 August 2004, ATSDR provided Camp Lejeune EMD and Water Utility staff with meter locations for Holcomb Boulevard water treatment plant service area (8 meter locations)
- On 28 October 2004 ATSDR provided Camp Lejeune EMD and Water Utility staff with finalized locations for both Hadnot Point and Holcomb Boulevard water treatment pant service areas (16 meter locations)
- The agreed upon tentatively flow meter installation schedules is:
 - 18 October 2004 — EMD receives revised fee proposal form AH Environmental Consultants
 - 25 October 2004 — Purchase of flow meters
 - 29 November – 03 December 2004 — Begin flow meter installation in Holcomb Boulevard water treatment plant area.

Water-Distribution System Testing

- Prior to conducting a detailed test of the Hadnot Point and Holcomb Boulevard water-treatment service areas, approximately six months of recorded flow data will be required to properly design and execute the test.