**Headquarters**
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***Army Regulation 700–136**

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**Logistics**

# Tactical Land-Based Water Resources Management

By Order of the Secretary of the Army:

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*General, United States Army*
*Chief of Staff*

Official:

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**History.** This publication is a major revision. The portions affected by this major revision are listed in the summary of change.

**Authorities.** The authorities for this regulation are DoDD 4705.01E and JP 4–03.

**Applicability.** This regulation applies to the Regular Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve, unless otherwise stated.

**Proponent and exception authority.** The proponent of this regulation is the Deputy Chief of Staff, G–4. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency, in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to AR 25–30 for specific requirements.

**Army internal control process.** This regulation contains internal control provisions in accordance with AR 11–2 and identifies key internal controls that must be evaluated (see appendix B).

**Suggested improvements.** Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Deputy Chief of Staff, G–4 (DALO–OPO) Publications Team mailbox at usarmy.pentagon.hqda-dcs-g-4.mbx.publications@army.mil.

**Committee management approval.** AR 15–39 requires the proponent to justify establishing/continuing committee(s), coordinate draft publications, and coordinate changes in committee status with the Office of the Administrative Assistant to the Secretary of the Army, Special Programs Directorate at usarmy.pentagon.hqda-hsa.mbx.committee-management@army.mil. Further, if it is determined that an established "group" identified within this regulation later takes on the characteristics of a committee as found in AR 15–39, then the proponent will follow AR 15–39 requirements for establishing and continuing the group as a committee.

**Distribution.** This regulation is available in electronic media only and is intended for the Regular Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

*This regulation supersedes AR 700-136, dated 5 June 2009.



**UNCLASSIFIED**

# *SUMMARY of CHANGE*

AR 700–136
Tactical Land-Based Water Resources Management

This major revision, dated 16 July 2024—

- Identifies organizational relationships for tactical water resources management (para 1–6).
- Updates responsibilities (paras 1–7 through 1–21).
- Updates water management policy (chap 2).
- Makes administrative changes (throughout).

**Contents** (Listed by chapter and page number)

# Chapter 1
# General

## Section I

## Introduction

### 1–1. Purpose
This regulation prescribes policy and procedures for tactical water resources management. Tactical water resources management includes policy and planning, transportation, storage and distribution, and computation and submission of requirements. This regulation establishes the Army's responsibilities for tactical water support. These responsibilities apply to all aspects of land-based water support during contingency operations, including water source selection, pumping, purification, storage, distribution, cooling, consumption, water reuse, water source intelligence, research and development, acquisition of water support equipment, water support operations doctrine, human-factors requirements, training, and water support force structure. The policy and procedures in this regulation do not apply to the water support operations of fixed installations or to the emergency water management of civil works.

### 1–2. References, forms, and explanation of abbreviations
See appendix A. The abbreviations, brevity codes, and acronyms (ABCAs) used in this electronic publication are defined when you hover over them. All ABCAs are listed in the ABCA database located at https://armypubs.army.mil/abca/.

### 1–3. Associated publications
This section contains no entries.

### 1–4. Responsibilities
See section II of this chapter.

### 1–5. Records management (recordkeeping) requirements
The records management requirement for all record numbers, associated forms, and reports required by this regulation are addressed in the Records Retention Schedule-Army (RRS–A). Detailed information for all related record numbers, forms, and reports are located in the Army Records Information Management System (ARIMS)/RRS–A at https://www.arims.army.mil. If any record numbers, forms, and reports are not current, addressed, and/or published correctly in ARIMS/RRS–A, see DA Pam 25–403 for guidance.

### 1–6. Organizational relationships
*a.* The Assistant Secretary of Defense for Sustainment oversees the activities of the Department of Defense (DoD) Executive Agent (EA) for land-based water resources in accordance with DoDD 4705.01E.

*b.* The Secretary of the Army (SECARMY) serves as the DoD EA for the management of land-based water resources to support contingency operations in accordance with DoDD 4705.01E.

*c.* DoDD 4705.01E establishes the Joint Water Resources Management Action Group (JWRMAG) to coordinate, advise, and recommend solutions to resolve land-based water support issues. To provide the most efficient and effective use of water stocks and equipment, water planners must be familiar with Service, DoD, and combatant commander water assets, policies, and responsibilities.

*d.* The Deputy Chief of Staff (DCS), G–4, is designated as the EA responsible official for land-based water resource matters to support contingency operations and is delegated the authority to act on behalf of the SECARMY for any or all of the responsibilities, functions, and authorities of the DoD EA. Submit questions or comments concerning JWRMAG to the DCS, G–4 (DALO–SPT) JWRMAG team via email to usarmy.pentagon.hqda-dcs-g-4.mbx.g44s-jwrmag@army.mil.

## Section II

## Responsibilities

### 1–7. Secretary of the Army

*a.* The SECARMY is the DoD EA for land-based water resources management to support contingency operations. In this role, the SECARMY is responsible for coordination with other services and the joint staff to develop and implement joint plans, procedures, and requirements for water management resources to support land-based forces.

*b.* The SECARMY is responsible for providing backup water support to other U.S. military Services in an area of operations when requested or when water support requirements of the other services exceed their own organic capability.

### 1–8. Assistant Secretary of the Army (Acquisition, Logistics and Technology)

The ASA (ALT) will—

*a.* Develop policy with the DCS, G–3/5/7 and Commanding General (CG), U.S. Army Futures Command (AFC) for the Long-Range Army Materiel Requirements Plan and for the Army Long-Range Research, Development, and Acquisition (RDA) Plan for equipping the future Army as it pertains to tactical land-based water resources management.

*b.* Prepare the modernization portion of the program objective memorandum for tactical land-based water resources management with the DCS, G–3/5/7 and CG, AFC.

*c.* Coordinate with the Assistant Secretary of the Army (Financial Management and Comptroller) and with DCS, G–3/5/7, to review and validate the RDA program for tactical land-based water resources management.

*d.* Coordinate with other Services and the joint staff to ensure that research and development efforts meet overall DoD goals and to eliminate duplicate efforts for tactical land-based water resources management.

*e.* Coordinate the execution of the RDA program, including identifying programs for funding adjustments, for tactical land-based water resources management.

*f.* Ensure Program Executive Office, Combat Support and Combat Service Support (PEO CS&CSS), capitalizes, to the maximum extent possible, on emerging technologies relative to Army production lines to support the objective force and beyond for tactical land-based water resources management.

*g.* Coordinate acquisition and sustainment matters with the Under Secretary of Defense for Acquisition and Sustainment, who is the Office of Secretary of Defense focal point for land-based water resources in accordance with DoDD 4705.01E.

*h.* Oversee the PEO CS&CSS, who will oversee the Project Manager Force Projection, and provide oversight to the Product Manager for Petroleum and Water Systems (PdM PAWS). The PEO CS&CSS-Project Manager Force Projection-PdM PAWS will—

(1) Provide the warfighters with the most advanced water technology in today's inventory.

(2) Ensure technology insertion throughout the system's life cycle, while providing reliability, supportability, and sustainability across the entire spectrum of the battlefield.

*i.* Provide membership to the JWRMAG.

### 1–9. Deputy Chief of Staff, G–3/5/7

The DCS, G–3/5/7 will—

*a.* Establish requirements and priorities for research, development, testing, and evaluation (RDTE) projects, tasks, and procurement systems pertaining to land-based water resource management.

*b.* Oversee the organization, force structure, operations, plans, and readiness of water-related troops.

*c.* Ensure resources are programmed to support the requirements of the combatant commands and the DCS, G–4 through submissions to the program objective memorandum.

*d.* Provide membership to the JWRMAG.

### 1–10. Deputy Chief of Staff, G–4

The DCS, G–4 will—

*a.* Coordinate requirements relating to logistics and RDA with the ASA (ALT).

*b.* Coordinate with other Services and the joint staff to develop and implement plans, procedures, and requirements for water resources in support of land-based forces.

*c.* Establish procedures for coordination of DoD component regulatory documents and plans affecting water resources.

*d.* Ensure that tactical water support to other Services is incorporated into the operational plans (OPLANs) and contingency plans (CONPLANs) of Army components.

*e.* Advise commanders, task forces, combatant commanders, and joint logistics staff in making decisions about water support logistics in tactical situations.

*f.* Chair annual meetings of the JWRMAG to coordinate and resolve joint water support issues in accordance with DoDD 4705.01E.

*g.* As Chair, JWRMAG, develop an improved, expanded, and automated water resources intelligence database for the rapid retrieval of selected data.

*h.* As Chair, JWRMAG, convene annual meetings by the JWRMAG.

**1–11. Deputy Chief of Staff, G–8**

The DCS, G–8 will provide membership to the JWRMAG.

**1–12. Chief of Engineers**

The COE, as the CG, U.S. Army Corps of Engineers, will—

*a.* Advise on the formulation of policies, procedures, and equipment requirements to locate and develop sources of raw water.

*b.* Comply with all requirements (both substantive and procedural) for the control and abatement of water pollution in the Clean Water Act (Title 33, United States Code, Chapter 26 (33 USC Chapter 26)) and applicable DoD regulations for areas outside the continental United States (OCONUS), which expressly requires the Army to comply.

*c.* Develop and maintain an automated database for the rapid retrieval of water-related and associated environmental data.

*d.* Build, maintain, and operate water systems—permanent and semipermanent, tactical and nontactical—to support base camps for enemy prisoners of war, refugees, displaced civilians, and other similar humanitarian relief efforts.

*e.* Establish water and wastewater systems—and help in their operation—associated with force-provider support sites. Each appropriate force-provider commander will determine specific requirements of the COE.

*f.* Maintain the capability to generate, integrate, manage, analyze, and disseminate geospatial water and environmental information and both hardcopy and soft copy maps to provide public access to water and environmental resources and related water quality and environmental data in the custody of the Corps of Engineers and support statutory responsibilities of the COE specified in 16 USC 580m, 33 USC 2342, 40 USC 9503, and 48 USC 1845.

*g.* Locate and develop water resources.

*h.* Provide construction support necessary to establish water-well sites and construct, maintain, and operate permanent and semipermanent water-utility systems in the theater of operations (TO).

*i.* Fulfill responsibilities assigned in paragraph 1–18.

*j.* Provide membership to the JWRMAG.

**1–13. The Surgeon General of the Army**

TSG of the Army, as the principal military advisor to the SECARMY for the health and medical aspects of manning, training, equipping, and readiness of the force, will—

*a.* Establish quality standards for both potable and non-potable water.

*b.* Determine the requirements for monitoring and surveillance of water quality.

*c.* Assist in developing and reviewing test protocols for the military use of tactical water purification systems.

*d.* Establish procedures for field water-vulnerability assessments.

*e.* Coordinate with the Defense Health Agency to ensure the following are accomplished in support of Army operations:

(1) Test supplies of bulk, packaged, and bottled water and approve accepted supplies for distribution.

(2) Technical review and evaluation of water equipment to determine whether health hazards exist.

(3) Provide guidance in the selection and use of commercial off-the-shelf water purifiers and water treatment systems.

*f.* Provide membership to the JWRMAG.

**1–14. Commanding General, U.S. Army Forces Command**

The CG, FORSCOM will—

*a.* Establish and maintain a collective (unit level), tactical water-training facility, integrating a total Army approach, including the Regular Army, Army National Guard, Army National Guard of the United States, and U.S. Army Reserve.

*b.* Respond to operational requirements for tactical water purification equipment.

*c.* Execute additional responsibilities assigned in paragraph 1–18.

*d.* Provide membership to the JWRMAG.

**1–15. Commanding General, U.S. Army Training and Doctrine Command**

The CG, TRADOC will—

*a.* Develop Army tactical water support doctrine, including doctrine on the use of commercial, bottled water and water-packaging systems.

*b.* Ensure Army water support doctrine is compatible with joint doctrine.

*c.* Conduct individual training for military occupational specialties, table of organization and equipment documentation, and equipment basis of issue plans.

*d.* Execute additional responsibilities assigned in paragraph 1–18.

*e.* Assign representatives from Headquarters, TRADOC; Combined Arms Support Command; the Quartermaster School; the Engineer School; and other commands, as requested or directed, to provide membership to the JWRMAG.

**1–16. Commanding General, U.S. Army Materiel Command**

The CG, AMC will—

*a.* Provide equipment for generating water from unconventional sources, including atmospheric humidity and the exhaust from vehicles and other internal combustion engines.

*b.* Develop a plan for the reconstitution or resetting of water operational project stocks (OPS) after deployment.

*c.* Oversee the CG, U.S. Army Tank-Automotive and Armaments Command, who, through the Army Integrated Logistics Support Center, will—

(1) Maintain the storage and maintenance of all tactical water equipment maintained within depots in the continental United States (CONUS), including all OPS of water equipment.

(2) Be responsible for the funding and budgeting of management for OPS.

(3) Develop transportation plans, containerization plans, and call-forward procedures for water OPS at CONUS depots.

(4) Develop loan procedures for water OPS to support training exercises.

(5) Develop a care-of-supplies-in-storage plan for water support equipment prepositioned afloat or ashore OCONUS.

*d.* Oversee the CG, Army Sustainment Command, who oversees the Commanders, Army Field Support Brigades, who, in conjunction with the Commander, Logistics Civil Augmentation Program Support Brigade, will—

(1) Develop and publish CONPLANs to provide necessary augmentation of force structure via civilian-contractor capability to fill shortfalls in water purification, storage, and distribution capability in the Army.

(2) Exercise and implement the civil augmentation plan for water purification, storage, and distribution, as required.

*e.* Execute additional responsibilities assigned in paragraph 1–18.

*f.* Provide membership to the JWRMAG.

**1–17. Commanding General, U.S. Army Futures Command**

The CG, AFC will—

*a.* Oversee the U.S. Army Combat Capabilities Development Command, which, through tank automotive research and development, employs science and technology, research and development, engineering support, quality assurance, and related work to develop—

(1) Equipment for the storage and distribution of water.
(2) Equipment for the monitoring of water quality.
(3) Water and wastewater treatment equipment.
(4) Treatment for the recycling and reuse of water.
(5) Devices for emergency water treatment by Soldiers.
(6) Packaging of water in disposable or reusable containers.
(7) Certification of nonstandard water systems, including emergency and handheld systems for treating water.

*b.* Plan, organize, and provide for RDTE of water handling systems and equipment, storage, and related products, including the preparation of specifications, standards, test data, engineering criteria, and qualification testing.

*c.* Provide qualified technical representatives to participate in the selection of all water and related materials used during the design, test, and evaluation in the development of equipment and during the provisioning cycle of maintenance support items for both military and commercial off-the-shelf equipment.

*d.* Participate in the standardization of water and associated handling equipment with other DoD activities.

*e.* Provide qualified tech reps and laboratory capabilities to test all Army water and packaged products.

*f.* Execute additional responsibilities assigned in paragraph 1–18.

*g.* Provide membership to the JWRMAG.

**1–18. Commanders of Army commands, Army service component commands, and direct reporting units**

Commanders of Army commands, Army service component commands, direct reporting units, and subordinate organizations throughout this regulation, unless otherwise specified, will—

*a.* Evaluate and make recommendations on requests for deviation from the policies in this regulation.

*b.* Report or respond to water supply and distribution constraints.

*c.* Monitor the results of water-supply performance measurements using their internal measures of effectiveness.

*d.* Establish stockage levels and designate units required to keep basic loads of supplies and chemicals.

*e.* Ensure all water supply and equipment belonging to, arriving in, or departing from their command are tracked during distribution or transportation and are accounted for and safeguarded.

*f.* Inspect or evaluate water support operations of subordinate units and resolve discrepancies.

*g.* Plan for the use of tactical water support requirements for Army forces during the planning phases of each operation.

*h.* Ensure water management for OPLANs includes sufficient information to identify the consumption planning factors, storage, distribution, and time-phasing of water capabilities required for support.

*i.* Ensure that tactical water support to other Services, when required to be provided by the Army, is incorporated into OPLANs or CONPLANs or is preplanned with inter-Service support agreements (ISSAs).

*j.* Maximize the use of and dependency on tactical water purification, storage, and distribution equipment in all operations and exercises, especially during combat training center rotations, to synchronize water assets in a joint environment and to minimize dependency on commercial, bottled water.

*k.* Fulfill responsibilities in paragraph 2–14 regarding water discipline.

*l.* Fulfill responsibilities in paragraph 2–15 regarding exercises and training.

*m.* Provide command G–4 membership to the JWRMAG.

**1–19. Commanders of engineering units**

Commanders of engineering units will fulfill responsibilities assigned in paragraph 1–18.

**1–20. Commanders of quartermaster units**

Commanders of quartermaster units that provide water production, storage, and distribution capabilities will—

*a.* Set up and operate water purification equipment and perform monthly, quarterly, or semiannually wet testing of all water treatment equipment to ensure readiness in accordance with appropriate technical manual.

*b.* Establish and operate water points for direct support and general support of units. Perform supply point, unit, or throughput distribution to direct supported and general supported units. Coordinate with the support operations section for mission requirements.

*c.* Establish a unit deployment readiness program for water support equipment and personnel, ensuring sustainment of technical proficiency and equipment operational readiness.

*d.* Maximize FORSCOM, unit-level, tactical water support training to sustain personnel technical proficiency and ensure wet testing of water equipment employed at local unit training areas or motor pools. Specifics on collective unit sustainment training provided by FORSCOM are available at https://armyeitaas.sharepoint-mil.us/sites/tr-scoe-skn/sitepages/pwd.aspx.

*e.* Establish and maintain a unit operational basic load for chemicals to support both garrison and deployment operations (see the Army Water Planning Guide for list of consumables).

*f.* For OCONUS commanders, consult with the lead environmental component or theater Army engineer to properly dispose of wastewater and other treatment wastes.

*g.* Employ unit field sanitation teams (when deployment activities allow or when required) per Army Techniques Publication (ATP) 4–25.12 to conduct the routine inspection of unit water containers and trailers, conduct daily checks of unit water supplies for chlorine residual, and disinfect (chlorinate) unit water supplies, as required.

*h.* Fulfill responsibilities assigned in paragraph 1–18.

### 1–21. Commanders, civilian supervisors, and managers

Commanders, civilian supervisors, and managers at all levels will—

*a.* Protect water inventories and take appropriate measures to protect water inventories from pilferage, contamination, damage, or loss from other causes.

*b.* Provide adequate quantities of potable water for human consumption, food preparation, teeth brushing, showering, and other personal hygiene.

*c.* Enforce a monitoring program for the consumption of potable water to ensure that troops do not become dehydration casualties.

*d.* Enforce appropriate procedures for the surveillance and sanitary control of potable and non-potable water, as defined in TB MED 577, to prevent waterborne disease and illness, including the manning, training, equipping, and using unit field sanitation teams when deployment activities require them.

*e.* Ensure that, in situations where non-potable water must be used for showers and other nondrinking, human-contact purposes, the command surgeon has approved using non-potable water for those purposes.

*f.* Procure and use only individual water purifiers recommended by the CG, TRADOC or TSG for the intended purpose.

*g.* Centrally manage water as a critical commodity if potable water is declared to be a scarce commodity.

*h.* Implement Army public health (including veterinary services) procedures and instructions to ensure the adequacy and safety of field water supplies or to oversee the implementation of those procedures and instructions.

*i.* Fulfill responsibilities assigned in paragraph 1–18.

## Chapter 2
## Water Management

### Section I

### General

### 2–1. Scope

Water support operations consist of treatment, storage, and distribution of potable and non-potable water in a TO, in accordance with ATP 4–41 and ATP 4–44. FM 4–40 classifies water as both a field service and a supply function. Water treatment is a field service function, while water storage and distribution are supply functions.

## 2–2. Bulk water

Bulk water is large in volume and should be distributed using tanks, bags, drums, hoselines, or pipelines. Bulk water is produced as close as possible to end users to minimize water distribution requirements. When equipment availability is limited, requirements for both potable and non-potable water can be met with potable water to prevent having two separate bulk water systems. Using potable water for non-potable purposes decreases opportunities for water reuse and the need to increase energy efficiency in theater. Using potable for non-potable purposes increases operational risk because it maintains an artificial demand for potable water that does not exist and uses additional fuel that needs to be procured and delivered. Planners need to incorporate risk of having only potable water for use in non-potable end uses.

## 2–3. Bulk water support responsibility

Bulk water support normally is a Service responsibility. In a joint operations area, the global combatant commander may delegate authority to the subordinate joint forces commander to assign water support responsibilities. Lead Service designation is attributable to the dominant user or the most capable Service in an area and is tasked to provide water support to all forces operating in that area. Local procedures for bulk water support will depend on conditions in the operational area.

## 2–4. Packaged water

Packaged water is sealed in individual containers, such as plastic bottles or pouches. The most common form of packaged water is bottled potable water. Bottled potable water can be manufactured by military or commercial means. Because packaged water is typically sourced from an industrial base through DoD contracts, it moves through multiple echelons prior to reaching the end user. Packaged water requires an extensive distribution network, which consumes transportation assets and materials handling equipment located at strategic, operational, and tactical echelons, and it should only be use at a last result. Planners should weigh the advantages and disadvantages of packaged and bulk water carefully to ensure the best method is chosen to support the contingency using bulk water purification systems. Army veterinary inspection personnel conduct sanitation audits for commercial bottled water manufacturers suppling to the DoD in accordance with AR 40–657 and MIL–STD–3006–C.

## 2–5. Water storage

Water units store potable bulk water to build required quantities to support tactical operations. Stored bulk water is chlorinated to kill any residual harmful organisms and to assist in the retention of potability standards as it moves through the distribution network. The final stage of water treatment includes injecting chlorine at 2 parts per million to disinfect it. Ensure the dosage provides a concentration of less than 4 parts per million at the first consumer on the distribution line. Potable bulk water is issued from storage systems directly to end users or issued for distribution to end users.

## 2–6. Water distribution and issue

Bulk water distribution occurs at all echelons, from the Army service component command to company level. Water can be issued from storage and distribution systems directly to an end user or through supply-point distribution, unit distribution, or throughput distribution to supported units. Army commanders must make efficient use of all available assets in conducting water distribution operations. Transporting water may involve various means, including bottled water, canned water, and the 2,000-gallon Load Handling System Compatible Water Tank Rack Systems. Closely track water issued from water supply points at all echelons to capture accurate historical data to ensure unit logistics planners and water treatment specialists are using accurate data to forecast future demand requirements. Use DA Form 1714 (Daily Water Issue Log) to capture historical data.

## 2–7. Water treatment

Water treatment involves analyzing source water quality and identifying and implementing physical and chemical treatment techniques to achieve safe, potable water. Purifying water alone does not achieve potability. Purified water must be chemically disinfected to achieve potability standards.

*a. Consumables.* Consumables include chemicals, filter cartridges, air filters, and reverse osmosis elements. The Army Water Planning Guide lists the consumable requirements by 100-operational-hour increments for each type of water purification unit for the 3,000 gallons-per-hour (GPH) Reverse Osmosis Water Purification Unit (ROWPU), the 125 GPH Lightweight Water Purifier (LWP), and the 1,500 GPH

Tactical Water Purification System (TWPS). Generally, replace reverse osmosis elements between increments of 1,000 to 2,000 hours and at the same time.

*b. Chemical requirement.* The chemical requirement for an operation depends on several variables for water treatment. These variables include—

(1) Source water temperature.
(2) Source water physical and chemical properties.
(3) Type of water treatment system.
(4) Estimated hours of operation and system retention times.
(5) Quality of water treatment system maintenance.

*c. Basic load.* Unit commanders will establish a basic load of 30 days of supply of consumables for each system for deployment. Base planning on 20 hours of operation per day. The amount of chemicals could be much higher due to mission analysis.

*d. Water treatment reports.* Daily water production logs are critical because they capture historical information that is used to schedule future resupply. In addition, use the log to schedule maintenance services. For this reason, enter data on production logs completely and accurately. Record data on each individual ROWPU, TWPS, or LWP, respectively. Daily water production logs are as follows:

(1) DA Form 1713 (Daily Water Production Log - 3,000 GPH ROWPU).
(2) DA Form 1713–2 (Daily Water Production Log - 1,500 GPH TWPS).
(3) DA Form 1713–3 (Daily Water Production Log - 125 GPH LWP).
(4) DA Form 1716 (Water Point Daily Production Summary).

## Section II

## Water Resources and Tactical Support

### 2–8. Water support requirements for Army forces

Planners will consider water support requirements for Army forces in the initial phase of each military operation and, when appropriate, include them in OPLANs. Planners will ensure at least that—

*a.* Whenever possible, reasonable, and where quality standards can be achieved, existing water systems are used in an area of operations. If Army personnel can reasonably repair damaged water systems or water equipment, Army personnel will use the repaired hardware.

*b.* Water requirement estimates are in accordance with established planning factors.

*c.* Plans are formulated to meet all expected needs.

*d.* Sufficient organic capability is programmed to support the water requirements of the force.

### 2–9. Water support for other Services

The SECARMY provides backup water support to other Services in an area of operations when requested and when the water support requirements of the other Services exceed their own capability. Commanders incorporate water support to other Services into OPLANs and CONPLANs or preplan it with ISSAs, according to paragraph 1–18*j*. Army support to other Services is a critical consideration in all funding requirements and in total Army analysis.

### 2–10. Multinational agreements and host nation support

Multinational forces are responsible for their own water support systems. Commanders of Army units may be directed by the joint forces commander to augment water support capabilities for multinational forces if they should exceed their capabilities according to DoDD 4705.01E. Commanders of Army units will meet water standards in paragraph 2–11. North Atlantic Treaty Organization (NATO) countries are governed by NATO Standardization Agreements such as NATO Standardized Agreement 2136 and NATO Standardized Agreement 2885.

### 2–11. Water standards

Determine water standards by considering the following:

*a.* TB MED 577 establishes potable water standards for the Army.

*b.* Commanders of each area of operation will establish potable and non-potable water standards using the guidance in TB MED 577.

*c.* Establish water standards for all applications at levels that will not endanger the health of personnel.

*d.* Provide sanitary control and surveillance of Army water supplies according to the standards, criteria, and guidance published in TB MED 577.

*e.* Water standards for construction, showers, laundry, and other nonpersonal cleansing may be lower than those established for drinking water. Commanders of each area of responsibility will approve or reject using lower-quality water for these purposes after assessing the associated health risks.

*f.* Operational public health personnel should inspect field water treatment systems in the operating mode in garrison at least semiannually to ensure deployment readiness. Inspect potable water containers, such as water trailers, tank racks, and fabric tanks or drums, prior to deployment. Operational public health personnel will conduct additional testing to confirm potability prior to initial distribution and then monthly as recommended in TB MED 577.

*g.* Water treatment specialists will conduct operational monitoring for total dissolved solids, turbidity, pH (hydrogen ion concentration), and free available chlorine to ensure that the treatment system is operating properly and that potable water meets standards in TB MED 577.

*h.* The Army Water Planning Guide serves as a comprehensive sustainment planning tool that identifies detailed inspection criteria that relate to water inspections.

**2–12. Water treatment, storage, and distribution**

This paragraph provides policy for water support operations for treatment, storage, and distribution.

*a.* Locate water treatment, storage, and distribution points as close to supported units as dispersion factors, sources of supply, and the tactical situation permit.

*b.* Contractor-owned or contractor-operated water treatment, storage, and distribution systems are subject to the same medical oversight, inspections, standards, and other requirements as those owned and operated by the Government, if established by the terms of the contract.

*c.* Use fresh water before brackish or salt water.

*d.* Store or transport potable water only in containers intended for potable water. Label them as such.

*e.* Do not transport or store potable water in petroleum, oils, and lubricants (POL) tanks, other containers intended for POL products, or containers that have contained POL or other toxic materials.

**2–13. Water management**

This paragraph provides policy for water management.

*a.* When water is readily available, provide it to the users with minimum controls.

*b.* When potable water is scarce, manage it centrally (as a critical commodity) by materiel-management centers.

*c.* When water resources are scarce, prioritize consumption requirements before issuing the water.

*d.* Establish procedures to protect water-supply systems and to maintain the potability of drinking water.

*e.* Protect water inventories from pilferage, contamination, capture, damage, or other loss.

**2–14. Water-supply discipline**

Commanders will establish and enforce procedures for water-supply discipline, including water-conservation initiatives. Commanders will enforce adequate water consumption for the various environmental conditions and activity levels encountered, in accordance with TB MED 507, to prevent heat casualties.

**2–15. Exercises and training**

Commanders will—

*a.* Apply tactical water concepts in all field-training exercises.

*b.* Conduct training in water-supply discipline periodically to ensure a thorough understanding of principles, practices, and procedures.

**2–16. Water support planning**

Since the capability of Army units and other services to fulfill their own water requirements may be difficult to predict, logistics planners must provide a force structure adequate to purify, store, and distribute the daily requirement for the force. Planning considerations should include the size of the force, time-phased deployment of units, and operating environment. These planning considerations are essential for accurately estimating bulk water requirements. Consumption requirements determine the type of equipment needed to provide support. The type of environment where operations take place significantly impacts

water consumption planning factors. There are four types of environmental conditions: hot tropical, hot arid, temperate, and cold. Each environment demands different planning considerations. Planners should estimate time-phased water requirements using consumption planning factors found in the Army Water Planning Guide to account for each type of environment. Planners should modify or adjust these standard planning factors based on the latest logistics preparation of the battlefield assessments or other unique conditions associated with a given operation or area of operation.

## Appendix A

## References

### Section I

### Required Publications

**Army Water Planning Guide**
(Available at https://cascom.army.mil/g_staff/g3/ttd/products/qm-how-to-handbook/awpg_approved_20mar23.pdf.) (Cited in para 1–20*e*.)

**ATP 4–41**
Army Field Feeding and Class I Operations (Cited in para 2–1.)

**ATP 4–44**
Water Support Operations (Cited in para 2–1.)

**DoDD 4705.01E**
Management of Land-Based Water Resources in Support of Contingency Operations (Cited in title page.)

**FM 4–40**
Quartermaster Operations (Cited in para 2–1.)

**JP 4–03**
Joint Bulk Petroleum and Water Doctrine (Cited in title page.)

**TB MED 507**
Heat Stress Control and Heat Casualty Management (Cited in para 2–14.)

**TB MED 577**
Sanitary Control and Surveillance of Field Water Supplies (Cited in para 1–21*d*.)

### Section II

### Prescribed Forms

This section contains no entries.

## Appendix B

## Internal Control Evaluation

### B–1. Function
The function of this evaluation is to support compliance of tactical land-based water resources management.

### B–2. Purpose
The purpose of this evaluation is to assist commanders at all levels to evaluate the key management controls listed in paragraph B–4. It is not intended to cover all controls.

### B–3. Instructions
Answers must be based on the actual testing of key internal controls (for example, document analysis, direct observation, sampling, simulation, and/or others). Answers that indicate deficiencies must be explained and the corrective action identified in supporting documentation. These internal controls must be evaluated at least once every 2 years. Certification that the evaluation has been conducted must be accomplished on DA Form 11–2 (Internal Control Evaluation Certification).

### B–4. Test questions
*a.* Are management responsibilities in AR 700–136 being met?
*b.* Is periodic wet testing of all water treatment equipment being conducted?
*c.* Has a unit-level deployment readiness program for water support equipment and personnel been developed and implemented?
*d.* Is an operational basic load for chemicals established?
*e.* Are appropriate measures implemented to protect water inventories from pilferage, contamination, damage, or loss from other causes?
*f.* Are procedures for the surveillance and sanitary control of potable and non-potable water in accordance with TB MED 577 being enforced to prevent waterborne disease and illness?
*g.* Are individual water purifiers recommended by the CG, TRADOC or TSG?
*h.* Is quality monitoring and surveillance of potable and non-potable water performed in accordance with TB MED 577?
*i.* Are daily water production logs being used for each water purification system?

### B–5. Supersession
Not applicable.

### B–6. Comments
Help to make this a better tool for evaluating internal controls. Submit comments to the DCS, G–4 (DALO–SPT), usarmy.pentagon.hqda-dcs-g-4.list.g-44s-troop-support@army.mil.

## Glossary of Terms

**Potable water**
Water that is safe for human consumption.

**Raw water**
Water in its natural state.

**Water point**
Water supply point for direct support issue of water.