

**Summary Report for Individual Task
101-92F-9006
Plan Water Operations
Status: Approved**

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DESTRUCTION NOTICE: None

Condition: You are a Petroleum and Water Officer assigned to a unit preparing to deploy to a theater/area of operations (AO), or which has deployed and is currently supporting a designated service or joint combatant command. You are responsible for planning water operations in support of full spectrum operations. You have access to the current table of organization (TOE) for all assigned and supported units, personnel and equipment, higher headquarters (HQ) operation plan (OPLAN) and/or operation order (OPORD), unit tactical standing operating procedure (TSOP), status reports, maps, overlays, communication equipment, and current digitized automated logistics support systems. You have full access to all applicable reference materials, to include the CASCOM Water Planning Guide. Operational environment (OE) variables and actors such as infrastructure, physical environment, and time, must be considered. Threat capabilities cover a full spectrum including information gathering, hostile force sympathizers, and terrorist activities. Some iterations of this task should be performed in MOPP.

Standard: Water support plans are completed and approved by higher HQ and supported command elements. The plan calls for continuous water support from the outset of operations at levels that support the commands operational momentum.

Special Condition: None

Safety Level: Low

MOPP: Sometimes

Task Statements

Cue: None

DANGER
None

WARNING
None

CAUTION
None

Remarks: None

Notes: The operational environment (OE) is a compilation of all the critical variables and actors that create the conditions, circumstances, and influences that can affect military operations today and in the near- and mid-term. The OE is continuously changing and requires continuous adaptation for each mission. All Army elements must be prepared to enter any environment and perform their missions while simultaneously dealing with a wide range of unexpected threats and other influences. Units must be ready to counter these threats and influences and, at the same time, be prepared to deal with various third-party actors, such as international humanitarian relief agencies, news media, refugees, and civilians on the battlefield. These groups may or may not be hostile to us, but they can affect the unit's ability to accomplish its mission.

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Performance Steps

1. Maintain water source data.
 - a. Coordinate for water source data and overlays with supporting engineer unit.
 - b. Coordinate for existing preventive medicine water analysis data with supporting medical brigade.
 - c. Identify all existing civilian, municipal, and private water sources.
 - d. Coordinate with higher HQ for civil affairs (CA) data on availability of identified civilian, municipal, and private water sources.
2. Compute water requirements.
 - a. Coordinate with higher HQ to determine total authorized strength to be supported by type of unit, by command, or by area supported.
 - b. Coordinate with higher HQ, to determine backup support requirements for allied forces (if present and required to support) and/or the Air Force, Marines, and Navy (if the Army is the predominant service).
 - c. Coordinate with higher HQ, to determine the number of enemy prisoner of war (EPW) camps and personnel to be supported.
 - d. Calculate water requirements for total authorized strength to be supported by type of unit, by command, or by supported area.
 - e. Compute total daily demand, in gallons per day (GPD), for the supported area.
 - f. Compute water stockage availability for one day of supply (DOS) for the supported troop density.
 - g. Compare stockage requirements and availability storage capacity.
 - h. Coordinate for additional storage capacity, if necessary, with battalion S4.
 - i. Compute water purification requirements in GPD.
 - j. Compute number of purification units necessary to meet the total daily requirement.
 - k. Compute number of Transportation Medium Truck Companies (Water) needed for transport of bulk water.
 - l. Compute the number of tactical water distribution systems (TWDS) needed for transportation of bulk water.
3. Plan water purification operations.
 - a. Identify purification requirements by reexamining water production requirements.
 - b. Identify water purification requirements based on the quality of the water identified in the preventive medicine water analysis.
 - c. Identify general location of purification site(s) as related to troop densities supported and water resources.
 - d. Coordinate for site preparation with the supporting engineer unit.

- e. Develop instructions and guidance for subordinate purification units.
 - f. Coordinate for site reconnaissance.
4. Plan water storage operations.
- a. Identify water storage requirements by reexamining water stockage requirements.
 - b. Identify general location of base terminal, head terminal, and water points based upon purification, supply, storage, and distribution requirements and supported troop densities.
 - c. Coordinate for site reconnaissance.
 - d. Coordinate requirements for engineer site preparation with supporting engineer unit.
 - e. Develop instructions and guidance for subordinate purification units.
5. Plan water distribution operations.
- a. Identify water distribution requirements by reexamining water supply and stockage requirements.
 - b. Identify requirements for daily water distribution and distribution routes.
 - c. Coordinate requirements for engineer support for distribution route improvement, if necessary, with supporting engineer unit.
 - d. Identify capabilities of Tactical Water Distribution Teams and the Medium Truck Company(s).
 - e. Develop instructions and guidance for supporting units.
6. Plan water support during offensive operations.
- a. Identify all sustainment controls and priorities in the service support order.
 - b. Devise consumption plan in coordination with higher HQ.
 - c. Determine possible relocation of water supply points to forward locations with higher HQ as the attack develops.
 - d. Establish water airdrop or slingload resupply with higher HQ.
7. Plan water support during defensive operations.
- a. Determine relocation of water assets by echelon to the rear in coordination with higher HQ.
 - b. Direct command/brigade units to upload as much water assets as possible.
8. Plan water support during retrograde operations.
- a. Develop the evacuation plan for water products to fallback points as directed by higher HQ.
 - b. Establish the evacuation plan for supplies and equipment at night and other periods of limited visibility with higher HQ.

c. Establish security requirements with higher HQ.

9. Prepare the water support operations plan.

a. List water supply and storage requirements.

b. List distribution and transportation requirements.

c. List locations of water points.

d. List routes to and from water points.

e. List special precautions or water testing that may be necessary by the using unit.

f. Identify facilities, purification/storage/distribution equipment, and units required to support distribution and storage operations.

g. Coordinate requirements for issuance of water to civilian personnel and/or use of municipal or private water supplies with the supporting civil affairs command.

h. Identify backup water support requirements to other U.S. military services.

i. Identify support requirements for enemy prisoners of war (EPW) and civilian refugee operations.

j. Identify support requirements for Force Provider operations.

k. Identify requirements for Theater Quality Analysis (QA)/Quality Surveillance (QS) Program.

l. Identify water sources to support water production operations.

m. Forward water support plan to higher HQ for approval.

n. Distribute water support plan to all appropriate staff sections, higher HQ, and supported/supporting units/elements.

10. Maintain situational awareness using available communications/information systems.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Score the soldier GO if all steps are passed. Score the soldier NO GO if any steps are failed. If the soldier scores a NO GO, show what was done wrong and how to do it correctly.

Evaluation Preparation: At the test site provide all materials that are relevant to the task to include those mentioned in the condition statement.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Maintained water source data.			
2. Computed water requirements.			
3. Planned water purification operations.			
4. Planned water storage operations.			
5. Planned water distribution operations.			
6. Planned water support during offensive operations.			
7. Planned water support during defensive operations.			
8. Planned water support during retrograde operations.			
9. Prepared water support operations plan.			
10. Maintained situational awareness using available communications/information systems.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	AR 700-136	TACTICAL LAND-BASED WATER RESOURCES MANAGEMENT	Yes	No
	CASCOM WPG-1	CASCOM Water Planning Guide	Yes	No
	FM 10-115	QUARTERMASTER WATER UNITS	Yes	No
	FM 10-52	WATER SUPPLY IN THEATERS OF OPERATIONS	Yes	No
	FM 10-52-1	WATER SUPPLY POINT EQUIPMENT AND OPERATIONS	Yes	No
	FM 3-100.4	Environmental Considerations in Military Operations [MCRP 4-11B]	No	No
	FM 5-19	COMPOSITE RISK MANAGEMENT	Yes	No
	JP 4-03	Joint Bulk Petroleum and Water Doctrine	Yes	No
	TB MED 577	Sanitary Control and Surveillance of Field Water Supplies	Yes	No

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT. Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects.

a. Ensure that all necessary actions are taken to prevent, control, and abate environmental pollution related to fuel facilities, activities, and programs.

b. Comply with unit SOP/OPLAN/OPORD, local, state, federal, and host nation laws, as well as, international environmental laws and treaties for the handling and disposal of fuel and hazardous materials (such as, used oil, contaminated fuel, and chemical test kits).

c. Before performing this task, read and comply with appropriate Material Safety Data Sheet (MSDS). Wear the appropriate personal protective equipment (PPE). Clean and secure the PPE upon completion of this task.

Safety: In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC)

Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. Safety is paramount to the successful execution of military operations. Enforce safety, and ensure safety procedures are incorporated into all aspects of operations. As a manager, verify that personnel are adequately trained to operate in all environments. Ensure personnel have all required safety equipment and gear. Provide access to the latest safety-proven procedures, fire fighting equipment, and safe chemical handling guide, including substitutions.

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks : None

Supported Collective Tasks :

Task Number	Title	Proponent	Status
10-1-0205	Plan Water Support Operations	10 - Quartermaster (Collective)	Approved
10-9-0006	Plan Theater/Area Water Support (Brigade-Echelons Above Corps)	10 - Quartermaster (Collective)	Approved

ICTL Data :

ICTL Title	Personnel Type	MOS Data
Petroleum and Water Officer	Officer	AOC: 90A, Rank: CPT, SI: R8, LIC: YY