

## LOCATING TEAM – WATER SECTOR INFRASTRUCTURE

<b>DESCRIPTION</b>	The Locating Team - Water Sector Infrastructure is responsible for locating water and sewer mains, manholes, and valves
<b>RESOURCE CATEGORY</b>	Public Works
<b>RESOURCE KIND</b>	Team
<b>OVERALL FUNCTION</b>	The Locating Team - Water Sector Infrastructure locates and documents the locations of water and wastewater infrastructure assets
<b>COMPOSITION AND ORDERING SPECIFICATIONS</b>	<ol style="list-style-type: none"> <li>1. Discuss logistics for deploying this team, such as working conditions, safety, length of deployment, security, lodging, transportation, and meals, prior to deployment</li> <li>2. Requestor provides system maps indicating the existence of water mains, sewer mains, and associated infrastructure; if possible, requestor provides a representative familiar with the location of affected water and sewer infrastructure to accompany this team</li> <li>3. Requestor provides external support, such as vehicle fuel and power for phones, computers, and other rechargeable devices</li> <li>4. Requestor specifies any necessary safety qualifications and equipment, such as confined-space entry, trenching, and shoring capabilities</li> </ol>

Each type of resource builds on the qualifications of the type below it. For example, Type 1 qualifications include the qualifications in Type 2, plus an increase in capability. Type 1 is the highest qualification level.

COMPONENT	SINGLE TYPE	NOTES
<b>MINIMUM PERSONNEL PER TEAM</b>	3	Not Specified
<b>MANAGEMENT AND OVERSIGHT PERSONNEL PER TEAM</b>	1 - National Incident Management System (NIMS) Type 1 Water Operations Team Leader OR NIMS Type 1 Wastewater Operations Team Leader	Requestor specifies the type of infrastructure and requests the corresponding team leader, whether NIMS Type 1 Water Operations Team Leader or NIMS Type 1 Wastewater Operations Team Leader.
<b>SUPPORT PERSONNEL PER TEAM</b>	2 - NIMS Utility Worker Specialist - Water Sector Infrastructure	The NIMS Utility Worker Specialist - Water Sector Infrastructure can be a welder, electrician, or mechanic. Requestor specifies worker specialty based on mission needs.
<b>SPECIALIZED EQUIPMENT PER TEAM</b>	<ol style="list-style-type: none"> <li>1. Infrastructure-locating equipment</li> <li>2. System maps</li> <li>3. Marking materials</li> <li>4. Expendable supplies</li> <li>5. Hand tools as necessary for the task and location</li> <li>6. Traffic management cones or other traffic control devices</li> </ol>	<ol style="list-style-type: none"> <li>1. Infrastructure-locating equipment may include ground-penetrating radar, electronic tracing equipment for tracer wire, metal detectors, and other traditional methods.</li> <li>2. Hand tools may include tape measures, screwdrivers, bolt cutters or other cutting tools, assorted wrenches, shovels, crowbars or lift tools, chainsaws, picks, small sledgehammers, and garden trowels.</li> </ol>
<b>PERSONAL PROTECTIVE EQUIPMENT (PPE) PER TEAM MEMBER</b>	<ol style="list-style-type: none"> <li>1. Hard hat</li> <li>2. Reflective vest</li> <li>3. Gloves</li> <li>4. Respiratory devices</li> <li>5. Protective clothing</li> <li>6. Protective footwear</li> <li>7. Flashlight</li> </ol>	PPE is mission-specific and may vary by work environment; it includes protective footwear, protective clothing for skin exposure, eye and ear protection, respirators, gloves, and masks.

COMPONENT	SINGLE TYPE	NOTES
<b>COMMUNICATIONS EQUIPMENT PER TEAM</b>	1. Cell phone 2. Portable two-way radio	1. Consider alternate forms of communication, such as satellite phones, based on the mission assignment and team needs. 2. Requestor provides radio specifications. 3. Provider supplies necessary chargers and backup batteries for battery-powered portable equipment.
<b>ELECTRONICS EQUIPMENT PER TEAM</b>	1. Laptop computer 2. Appropriate software 3. GPS	Appropriate software includes word processing, spreadsheet, Geographic Information Systems (GIS), and database management programs.
<b>TRANSPORTATION EQUIPMENT PER TEAM</b>	1 - Truck/SUV	Vehicle must be capable of traversing rough terrain, flood conditions, and adverse environmental conditions, and must carry equipment necessary for maintaining vehicle operation.

## NOTES

Nationally typed resources represent the minimum criteria for the associated component and capability.

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## REFERENCES

1. FEMA, NIMS 509: Utility Worker Specialist – Water Sector Infrastructure
2. FEMA, NIMS 509: Wastewater Operations Team Leader
3. FEMA, NIMS 509: Water Operations Team Leader
4. FEMA, National Incident Management System (NIMS), October 2017
5. FEMA, National Response Framework, June 2016