

WATER MAINS LEAK LOCATION TEAM

DESCRIPTION	The Water Mains Leak Location Team performs field-testing of water mains to locate leaks
RESOURCE CATEGORY	Public Works
RESOURCE KIND	Team
OVERALL FUNCTION	The Water Mains Leak Location Team locates leaks using: 1. Basic audio technology (audio detection devices) 2. Geophones (passive analog devices) 3. Electronic correlation (noise correlator devices)
COMPOSITION AND ORDERING SPECIFICATIONS	1. Discuss logistics for deploying this team, such as security, lodging, transportation, and meals, prior to deployment 2. This team typically works 12 hours per shift, is self-sustainable for 72 hours, and is deployable for up to 14 days 3. The requestor provides external support to the team, such as fuel and power for recharging phones, computers, and other rechargeable devices 4. The requestor provides system maps identifying water main sizes, pipe material, valve and hydrant locations or other resources for this team to locate the system, and, if possible, a representative familiar with the location of water mains of the affected system to accompany this team 5. The requestor should provide this team with Global Positioning System (GPS) coordinate information when possible

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	TYPE 1	TYPE 2	TYPE 3	NOTES
EQUIPMENT PER TEAM BASIC EQUIPMENT	Same as Type 2	Same as Type 3	1. System maps 2. Hand tools as necessary for the task and location 3. Marking devices, such as colored or marked traffic cones, spray paint, anchoring devices, and flagging tape 4. Traffic management cones or other traffic control devices	Hand tools may include tape measure, screwdrivers, bolt cutters or other cutting tools, assorted wrenches, shovel, crowbar or lift tool, chainsaw, and garden trowel.
EQUIPMENT PER TEAM LEAK DETECTION	Noise correlator detection equipment	Geophone detection equipment (passive analog device)	Basic audio detection equipment	Not Specified
EQUIPMENT PER TEAM MEMBER COMMUNICATIONS	Same as Type 2	Same as Type 3	1. Cell phone 2. Portable two-way radio	Consider alternate forms of communication, such as satellite phones, based on the mission assignment and team needs.

Superseded

COMPONENT	TYPE 1	TYPE 2	TYPE 3	NOTES
EQUIPMENT PER TEAM MEMBER PERSONAL PROTECTIVE EQUIPMENT (PPE)	Same as Type 2	Same as Type 3	PPE is mission-specific and may include: 1. Hard hat 2. Reflective vests 3. Gloves 4. Respiratory devices 5. Protective clothing 6. Protective footwear 7. Protective shields 8. Flashlight	The following regulation addresses PPE: Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR) Part 1910.132: Personal Protective Equipment.
EQUIPMENT PER TEAM VEHICLE	Same as Type 2	Same as Type 3	1 - Light-duty truck	Not Specified
PERSONNEL PER TEAM MANAGEMENT AND OVERSIGHT	Same as Type 2	Same as Type 3	1 - Lead Leak Locator	The Lead Leak Locator is not a National Incident Management System (NIMS) typed position.
PERSONNEL PER TEAM MINIMUM	2	2	1	Not Specified
PERSONNEL PER TEAM OPERATIONS AND SUPPORT	Same as Type 2	1 - Leak Location Assistant	Not Specified	The Leak Location Assistant is not a NIMS typed position.

Superseded

NOTES

1. Nationally typed resources represent the minimum criteria for the associated component and capability.
2. This document is US Government work and is not copyright protected in the United States. This publication was created with individual input and expertise provided by several state and local government entities. While the Federal Emergency Management Agency does not endorse any non-US government organizations or publications, several documents were referenced in the creation of this document, including, for example, the “American Water Works Association (AWWA), c 2008. Water & Wastewater Mutual Aid and Assistance Resource Typing Manual. Denver, Colorado.”

REFERENCES

Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR) Part 1910.132: Personal Protective Equipment, latest edition adopted

Superseded