

## REPAIR TEAM SEWER MAINS – WASTEWATER

<b>DESCRIPTION</b>	The Repair Team Sewer Mains - Wastewater repairs all types of wastewater mains and some related assets
<b>RESOURCE CATEGORY</b>	Public Works
<b>RESOURCE KIND</b>	Team
<b>OVERALL FUNCTION</b>	The Repair Team Sewer Mains - Wastewater is responsible for assessing and repairing all types of wastewater collection, stormwater collection, and reclaimed water distribution assets, including some that operate under pressure. These assets include gravity mains, force mains, aerial mains, and manholes but do not include lift and pump stations. The work encompasses excavation through backfill and may require bypass pumping.
<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 orders additional mission-specific National Incident Management System (NIMS) Utility Worker Specialists, such as mechanics, welders, electricians, and repair technicians, as single resources to supplement this team</li> <li>3. Requestor provides details about assets needing repair expertise, such as specific wastewater main materials and size ranges, typical depth of facilities, soil conditions, and any materials responders should provide</li> <li>4. Requestor provides plans showing main locations and notifies “call-before-you-dig” services in the region</li> <li>5. Based on the mission, requestor and provider coordinate welding equipment, traffic control considerations, and materials the requestor or others provide</li> <li>6. Requestor provides external support, such as vehicle fuel and power for phones, computers, and other rechargeable devices</li> <li>7. 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	TYPE 1	TYPE 2	TYPE 3	NOTES
<b>MINIMUM PERSONNEL PER TEAM</b>	Same as Type 2	6	5	Not Specified
<b>MANAGEMENT AND OVERSIGHT PERSONNEL PER TEAM</b>	Same as Type 2	Same as Type 3	1 - NIMS Type 1 Wastewater Operations Team Leader	Not Specified
<b>SUPPORT PERSONNEL PER TEAM</b>	Same as Type 2	Same as Type 3, PLUS: 1 - NIMS Utility Worker Specialist - Water Sector Infrastructure	4 - NIMS Utility Worker Specialist - Water Sector Infrastructure	The NIMS Utility Worker Specialist - Water Sector Infrastructure can be a welder or mechanic. Requestor specifies worker specialty based on mission needs.
<b>DIAMETER MAIN PER TEAM</b>	More than 24 inches	12 inches to 24 inches	Up to 12 inches	All types provided adhere to necessary disinfection procedures.

Resource Typing Definition for Infrastructure Systems  
Public Works

COMPONENT	TYPE 1	TYPE 2	TYPE 3	NOTES
<b>SPECIALIZED EQUIPMENT PER TEAM</b>	Same as Type 2, PLUS: 1 - Large track excavator	1 - Large track excavator	1 - Backhoe loader 2 - Tandem dump truck	1. Equipment includes a full complement of industry-specific tools necessary for repairs, such as power tools, hand tools, and pumps. 2. Type 1 team equipment includes appropriate trench boxes and other shoring equipment as necessary.
<b>PERSONAL PROTECTIVE EQUIPMENT (PPE) PER TEAM MEMBER</b>	Same as Type 2	Same as Type 3	1. Hard hat 2. Reflective vest 3. Gloves 4. Protective clothing 5. Protective footwear 6. Flashlight	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.
<b>ELECTRONICS EQUIPMENT PER TEAM</b>	Same as Type 2	Same as Type 3	1. Laptop computer 2. Digital camera 3. GPS 4. Appropriate software	1. Appropriate software includes word processing, spreadsheet, and database management programs. 2. Consider other equipment and supplies as necessary based on ordering specifications.
<b>COMMUNICATIONS EQUIPMENT PER TEAM</b>	Same as Type 2	Same as Type 3	1. Cell phone 2. Portable 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>TRANSPORTATION EQUIPMENT PER TEAM</b>	Same as Type 2	Same as Type 3	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

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1. Nationally typed resources represent the minimum criteria for the associated component and capability.
2. Heavy equipment comes with appropriate operator.
3. This team may conduct wastewater field sampling and testing.

## REFERENCES

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1. FEMA, NIMS 508: Repair and Start-Up Team Lift and Pump Stations – Wastewater Facility
2. FEMA, NIMS 509: Utility Worker Specialist – Water Sector Infrastructure
3. FEMA, NIMS 509: Wastewater Operations Team Leader
4. FEMA, National Incident Management System (NIMS), October 2017
5. FEMA, National Response Framework, June 2016