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Research on the Integration of Urban Flood Control Monitoring and Management Platform

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Disaster prevention IoT monitoring technology can be used to solve some problems in urban disaster prevention. For example, in the past, urban areas often experienced extreme regional rainstorms, which caused flooding, traffic chaos, and emergency response time and insufficient support for disaster prevention personnel. Especially during commuting hours, the government has difficulty in flooding and traffic management. This research is to use the disaster prevention Internet of Things monitoring technology to investigate the causes of flooding in urban flood-prone areas, monitor network planning, and install monitoring equipment. Through the storm sewer system monitoring network, set the warning water level value in the sewer system, transmit the water level information in real-time, and determine whether the system downstream pump station can be started to pump in advance to reduce the water level of the storm sewer system and the occurrence of flooding. In areas where there is no sewer system, the pavement flooding sensor is installed to monitor the flooding situation on the land surface. When the land surface is flooded, it is necessary to add regional forecast rainfall information to determine whether it will affect regional traffic. Traffic instructions for no-entry areas. Other real-time information about rivers, regional drainage water level stations, and rainfall stations are the basis for decision-making. Finally, urban storm sewer monitoring and management platforms are built to provide real-time information and a grasp of possible disasters. Take New Taipei City, Taiwan as an example to carry out research on the integration of water conservancy information.