

Definitions

- 10 year storm – rain event that has a 10% chance of occurring in any given year.
- 100 year storm – rain event that has a 1% chance of occurring in any given year.
- 2 FH flow test – the flowing and measuring of 2 fire hydrants to determine how much water is available in a given water main.
- Abandoned – public infrastructure that has either been removed or left in place without easements
- As-built – record drawings of completed construction
- Backflow preventer- Valve on a property that prevents cross contamination back into the city system.
- Binder – in pavement, “The glue that binds the aggregate together and waterproofs the pavement.” A material that enables vehicular on roads and full MWS testing of public mains.
- Bioretention – the process in which contaminants and sedimentation are removed from stormwater runoff. Stormwater is collected into the treatment area which consists of a grass buffer strip, sand bed, ponding area, organic layer or mulch layer, planting soil, and plants.
- Bond – most commonly a construction bond for the material value of the infrastructure. Allows for the Metropolitan Government to finish a project should a developer become insolvent. Bond value can be reduced or returned to the owner upon completion conditions.
- Book and Page – organization and cataloguing system of property documents at the Davidson County Register of Deeds.
- Buffer – vegetated areas next to water resources that protect water resources from nonpoint source pollution and provide bank stabilization and aquatic and wildlife habitat.
- Capacity/availability – The process by which MWS assesses if a lot has access to public water and sewer mains. Typically determines the amount of sewage a main can hold and how much water can be provided to a given site.
- Cityworks – current online permitting software/website used by Metro Government for Davidson County permitting
- Cleanwater Nashville OAP – Overflow Abatement Program, responsible for separating combined sewer mains and lining existing mains that need repair. Environmental Protection Agency (EPA) mandated project for MWS and consultants.
- Corp Stop – point of connection for small water services
- Curb Stop – shutoff valve for small water services
- Cut & fill – the movement of dirt during lot regrading. Cut is dirt removed, and fill is dirt added.
- Deed of conveyance – “a legal way of transferring legal rights of ownership of immovable property from one party to another.” Typically referring to MWS public water and sewer extension lay and deed projects. This deed denotes the end of an MWS construction project and allows for release of any relevant posted bonds.
- Developers Equity – term used for crediting developers of new public water and sewer infrastructure. Allows for waiving of water and sewer tap fees where applicable.

- Drainage Basin – “or 'catchment area' is any area of land where precipitation collects and drains off into a common outlet, such as into a river, bay, or other body of water.”
- Early release – term used for granting service connections before the new public infrastructure has been conveyed back to metro government.
- Easement – recorded legal document that allows for private or public parties to access a portion of a property for utility or drainage matters and repairs.
- Floodplain - normally dry or semi-dry land areas to which water naturally flows as water levels rise
- Floodway – the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height – typically 1 foot. Communities must regulate development in these floodways to ensure that there are no increases in upstream flood elevations
- Force Main – pressurized sanitary sewer pipe systems for when gravity flow is unavailable. Low pressure systems can be managed by a group of grinder pumps; larger systems may require dedicated pump stations.
- Gravity sewer – open channel piping that transports sewage to the treatment plant by the force of gravity only.
- Grinder pump – device that turns wastewater into slurry and pumps it upstream
- Infill – urban redevelopment on existing properties; lots previously zoned for single-family now hosting multiple units.
- Instrument Number – identifying number of a recorded legal document after a certain date.
- Lay & Deed – MWS project method by which developers lay new public infrastructure and transfer ownership to Metro for maintenance.
- Letter of responsibility – For MWS, the document that waives public responsibility on variance-related issues such as backflows or private sewer mains thereby transferring responsibility to private parties.
- Low Pressure System – a network that serves multiple sanitary sewer grinder pumps without the need for a dedicated pump station
- Mandatory Referral – Metro process by which existing public infrastructure is abandoned. Presented before the metro council for approval.
- Map and Parcel – An identifier given to a property when it is established ordered geographically.
- Nashville Crayfish, Mill Creek Watershed, “Orconectes shoupi is a federal and state endangered crayfish that resides on Mill Creek in Davidson and Williamson counties in Tennessee.”
- Plat- A legal map drawn to scale showing the divisions of a piece of land.
- Participation agreement – For MWS projects, related to funding/joint ventures between Metro and a given developer when circumstances arise.
- Pre-con – Mandatory preconstruction meeting held with relevant parties of a project before beginning construction.
- Pressure zone – peripheral areas of the city that are serviced by a water pump station
- Public / private – designation between city and individual property.

- Qless – queue management system for Metro Codes front desk
- Raingarden – shallow, depressed gardens designed to collect rain water and allow it time to filter into the ground.
- Service elevation – Highest possible building elevation at which a pressure zone can serve; related to Hydraulic Grade Line for a given network.
- Shared Sewer / private sewer – 1: the sharing of an existing service tap for two homes. 2: a sewer main that is not the responsibility of metro but serves multiple homes.
- Tap – The valve that connects plumbing to the city main.
- Trunk Sewer – the largest most critical sewer mains of a network.
- Two hydrant flow test – A test performed by Metro Water Services work crews on public fire hydrants to determine the available peak flow volume at a given public water main. Required by the Fire Marshal’s office for sprinkler requirement determination of homes of a certain size. Also necessary for new public fire hydrant projects.
- Unit of Flow – MWS defined as a single family home equivalent of 350 Gallons per day
- Variance – a request to differ from the MWS specifications. Most commonly refers to sewer, backflow, or stormwater devices.
- Xypex – concrete waterproofing coating to protect new manholes from corrosive elements

Acronyms and terms – MWS development

- ACOE – Army Corps of Engineers
- ADA – Americans with disabilities act
- AIA – American Institute of Architects
- ARAP – aquatic resource alteration permit, Physical alterations to properties of waters of the state require an Aquatic Resource Alteration Permit (ARAP)
- ASCE- American society of civil engineers
- AWWA – American waterworks association
- BFE – base flood elevation, “The computed elevation to which floodwater is anticipated to rise during the base flood. Base Flood Elevations (BFEs) are shown on Flood Insurance Rate Maps (FIRMs) and on the flood profiles. The BFE is the regulatory requirement for the elevation or floodproofing of structures. The relationship between the BFE and a structure's elevation determines the flood insurance premium.”
- BM – benchmark, known surveying elevation and coordinates for a given property.
- BMP – best management practice, control measures taken to mitigate changes to both quantity and quality of urban runoff caused through changes to land use.
- CFM – certified floodplain manager,
- CLOMR/LOMR – (conditional) Letter of Map Revision, “A Conditional Letter of Map Revision (CLOMR) is FEMA's comment on a proposed project that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of

the existing regulatory floodway, the effective Base Flood Elevations (BFEs), or the Special Flood Hazard Area (SFHA). The letter does not revise an effective NFIP map, it indicates whether the project, if built as proposed, would be recognized by FEMA. FEMA charges a fee for processing a CLOMR to recover the costs associated with the review. **Building permits cannot be issued based on a CLOMR, because a CLOMR does not change the NFIP map.”**

- CMP – corrugated metal pipe, ribbed metal pipe, typically large for stormwater applications. Formerly used for other types of mains.
- CO – cleanout
- CRS – community rating system, “The National Flood Insurance Program's (NFIP) Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements.”
- CSO – combined sewer overflow, the area of the county that is still on the combined storm and sanitary sewer system.
- CSX – Railway company
- CWA – clean water act
- DDCV – Double detector check valve, a plumbing device for fire services that prevents city supply contamination. Uses two valves and an air gap to prevent used water from returning to the city system.
- DIP – ductile iron pipe, the most common material used for water mains and some sewer mains. Has been treated with graphite unlike cast iron.
- DRC – Development Review Committee
- EI – engineer intern, an engineer who has not completed the PE licensing process, but can work under PEs or for industrial organizations.
- EPA – environmental protection agency
- EPSC – erosion prevention sediment control, Specifically the State of TN’s certification program to keep streams and other bodies of water to maintain a high water quality.
- EQ basin – equalization basin, typically at MWS, a large municipal tank designed for wastewater detention in combined sewer systems during wet weather conditions.
- FDC – fire department connection, “the FDC is intended to provide sprinkler systems with a means to receive *supplemental* water support from fire department pumping apparatus.”
- FFE – finished floor elevation, elevation of the bottom floor of a building
- GIP – green infrastructure practice, vegetation, soils, and other elements and practices to restore some of the natural processes required to manage water and create healthier urban environments. At the city or county scale, green infrastructure is a patchwork of natural areas that provides habitat, flood protection, cleaner air, and cleaner water. At the neighborhood or site scale, stormwater management systems that mimic nature soak up and store water.
- GIS – Geographic Information System: map software that allows presentation of spatial data. In our context, shows MWS infrastructure in relation to properties in Davidson, Williamson, and Wilson counties.
- GPD – gallons per day, the amount of water for a site is typically listed at this rate.
- GV – Gate Valve

- HDPE – high density polyethylene, extra dense PVC pipe
- HEC – hydrologic engineering center, part of Army Corps of engineers. Develops software and modeling programs and publications for academics and design professionals.
- HGL – hydraulic grade line, “The surface or profile of water flowing in an open channel or a pipe flowing partially full. If a pipe is under pressure, the hydraulic grade line is that level water would rise to in a small, vertical tube connected to the pipe.”
- HMS – hydrologic modeling system, “The Hydrologic Modeling System (HEC-HMS) is designed to simulate the complete hydrologic processes of dendritic watershed systems. The software includes many traditional hydrologic analysis procedures such as event infiltration, unit hydrographs, and hydrologic routing.”
- HPR – horizontal property regime, Traditionally, horizontal property regimes only allow for the development of condos, in which units are stacked on top of one another, but Tennessee state law has a slightly different approach. In the state of Tennessee, horizontal property regimes are defined in a way that will, additionally, allow property owners to build two new houses on pieces of land that originally only had one house. However, the legal infrastructure supporting horizontal property regimes can be quite complicated.
- I&I – inflow and infiltration, the ways that groundwater and stormwater enter into dedicated wastewater or sanitary sewer systems.
- I&M –inspection and maintenance
- IE – Invert Elevation – elevation in feet of the entrance and exit of a pipe into a manhole or stormwater structure.
- LID – low impact development, a term used in Canada and the United States to describe a land planning, and engineering design approach to manage stormwater runoff as part of green infrastructure. LID emphasizes conservation and use of on-site natural features to protect water quality. This approach implements engineered small-scale hydrologic controls to replicate the pre-development hydrologic regime of watersheds through infiltrating, filtering, storing, evaporating, and detaining runoff close to its source.[1] ‘Green infrastructure’ investments are one approach that often yields multiple benefits and builds city resilience.[2]
- LOC – Letter of Credit - In the public infrastructure bonding process, the Letter of Credit is a written commitment by a bank that guarantees a payment to Metro that will cover all construction of certain public infrastructure projects in the event that the owner fail to complete construction.
- MH – manhole, can be for sanitary sewer, storm sewer, or combined sewer. Other utilities such as phone or electric can have manholes on their lines as well.
- MPC – Metro Planning Commission
- MSUD – Madison Suburban Utility District
- MXU – meter transceiver unit, allows for meters to be read without the box being opened.
- NAI – no adverse impact, in Floodplain management, “No Adverse Impact floodplain management takes place when the actions of one property owner are not allowed to adversely affect the rights of other property owners.”
- NCG – Nolensville College Grove

- NES – Nashville electric service
- NOC – Notice of Coverage (from TDEC)
- NOI – notice of intent to TDEC for stormwater permits for projects with a disturbance of one or more acres or part of a specific plan.
- NPDES – National Pollutant Discharge Elimination System - Persons discharging pollutants directly from point sources into surface waters of the state must obtain an NPDES discharge permit from the Tennessee Division of Water Resources. Direct dischargers include industrial and commercial wastewater, industrial stormwater, and municipal wastewater discharges.
- PA – Performance Agreement – in the public infrastructure bonding process, the performance agreement is a legal document defining the terms and conditions of the Letter of Credit.
- PCP – permanent construction practice
- PE – professional engineer, design professional that has passed the national exam and can work on behalf of clients.
- Perpetual maintenance agreement – Fee by which MWS assumes responsibility of repair for typically a new public sewer pump.
- PEX – Crosslinked polyethylene, a type of pipe for water service lines.
- PG – professional geologist
- PIF – Project initiation funding, MWS financial information and allocation for internal projects.
- PIV – pressure indicator valve, “A post indicator valve (PIV) is a valve assembly used to open or close the water supply to fire protection systems in large buildings.”
- PL - property line
- Plat- A legal map drawn to scale showing the divisions of a piece of land.
- PPM – parts per million, measurement of particulates within water, stormwater, and wastewater.
- PRV – pressure reducing valve, used to lower the city system’s water pressure for the safety of generally a residential development
- PSI –pounds per square inch, the pressure level of a water main
- PUD – planned urban development, a designated subdivision by local governments that differ from standard subdivisions, usually with mixed-use amenities
- PUDE – public utility drainage easement – an easement granting the public utility and its contractors the ability to work on a property for public water, sewer or drainage devices.
- PVC – polyvinyl chloride, “plastic” polymer pipe used primarily for sanitary sewer mains and services.
- RAS – River Analysis System, “HEC-RAS is designed to perform one and two-dimensional hydraulic calculations for a full network of natural and constructed channels.”
- RCP – reinforced concrete pipe, older pipe material made of concrete and steel rebar. Typically found on 1960s sewer mains and other storm drains.
- RLS – registered land surveyor
- ROW –right of way, most commonly a public road or alley, frequently home to MWS mains and other public utilities. Acts as a public utility, drainage, and access easement.

- RPBP – Reduced pressure backflow preventer, a plumbing device that uses negative pressure to prevent domestic use water from returning back into the city water system. Used to prevent possible contamination of the city supply.
- RSSP – residential sanitary sewer pump, for MWS purposes, the specified E-one grinder pump system for certain residential properties.
- SCM – stormwater control measure, “stormwater control measures, including BMPs, shall be designed and implemented to eliminate or reduce contact or exposure of pollutants to stormwater or remove pollutants from stormwater prior to discharge from the facility.”
- SP – specific plan, A "Specific Plan District," generally known as “SP” zoning, refers to a new type of base zoning district, not an overlay, which is not subject to traditional zoning districts’ development standards. Under SP zoning, design standards established for that specific development are written into the zone change ordinance.
- STEP/STEG – Septic Tank Effluent Pump / Gravity, also known as Effluent sewerage systems. Provides preliminary and primary treatment at the house before entering the gravity sewer system. Still requires septic tank cleaning periodically.
- SWGR – stormwater grading permit – description of the Metro permit’s number for grading projects.
- SWMC – stormwater management committee, the Metro variance committee for stormwater and grading projects.
- SWMM – stormwater management manual vol 1-5, Metro specifications for stormwater related development design.
- SWPPP – stormwater pollution prevention plan, EPA required stormwater project information. Identifies and minimizes site pollutants and assures compliance with terms of issued permits.
- Tc - Time of Concentration – The longest amount of time for a rain drop to reach a storm drain in a given basin.
- TOC – Top of casting – elevation of the lid/cover of a manhole.
- TCP – temporary construction practice “the practice of preventing or reducing the movement of sediment from a site during construction through the implementation of man-made structures, land management techniques, or natural processes.”
- TDEC – TN department of environment and conservation
- TDOT – Tennessee Department of Transportation
- TSV – tapping sleeve and valve, a large clamp that goes onto an existing water main to allow for a perpendicular connection
- TVA – Tennessee Valley Authority
- TWRA – TN wildlife resource agency
- U&O – use and occupancy, the final step of a building permit. Upon inspection completion and approval, the building itself is able to be opened.
- UDO – Urban Design Overlay, a zoning tool that requires specific design standards for development in a designated area. A UDO is used to either protect the pre-existing character of the area or to create a character that would not otherwise be ensured by the development standards in the base zoning district.