

RULES AND REGULATIONS
OF THE
THE HAMILTON COUNTY STORM WATER DISTRICT
ISSUED BY THE
BOARD OF COUNTY COMMISSIONERS
HAMILTON COUNTY, OHIO

ARTICLE I

DEFINITIONS

For the purposes of the Rules and Regulations of the Hamilton County Storm Water District ("HCSWD"), the following acronyms are used:

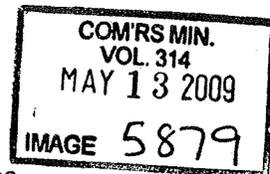
- BMP: Best Management Practice
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
- CFR: Code of Federal Regulations
- CO: Certificate of Occupancy
- EP&SC: Erosion Prevention and Sediment Control
- EPA: Environmental Protection Agency
- FEMA: Federal Emergency Management Agency
- HCDPW: Hamilton County Department of Public Works
- HCGHD: Hamilton County General Health District
- HCSWCD: Hamilton County Soil and Water Conservation District
- HCSWD: Hamilton County Storm Water District
- HSTS: Home Sewage Treatment System
- I&M: Inspection and Maintenance
- MS4: Municipal Separate Storm Sewer System
- MSD: Metropolitan Sewer District of Greater Cincinnati
- NOV: Notice of Violation
- NPDES: National Pollutant Discharge Elimination System
- OAC: Ohio Administrative Code
- ORC: Ohio Revised Code
- OUPS: Ohio Utilities Protection Service
- SERC: State Emergency Response Commission
- SWMP: Storm Water Management Plan
- TCO: Temporary Certification of Occupancy
- USDA: United States Department of Agriculture
- USGS: United States Geological Survey
- WQv: Water Quality Volume

For the purposes of these Rules and Regulations, the following shall mean:

Acre: A measurement of area equaling 43,560 square feet.

Adjacent: Lying near, close to, or contiguous; neighboring. Adjacent implies that the two objects are not widely separated.

As-Built: A record of the physical features of the improvements as they were actually constructed in the field.



Best Management Practices (BMPs): Schedules of activities, prohibitions of practices, maintenance procedures and other management practices (both structural and non-structural) to prevent or reduce the pollution of surface waters of the State. BMPs also include treatment requirements, operating procedures and practices to control runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage.

Channel: The area between definite banks of a natural or artificial watercourse which confine and conduct continuously or periodically flowing water (ORC 6105.01).

Check Dam: A small, temporary or permanent dam constructed across a drainage ditch or swale to lower the speed of concentrated flows for a certain design range of storm events.

Clean Hard Fill: Construction and demolition debris which consists only of reinforced or non-reinforced concrete, asphalt concrete, brick, block, tile, and/or stone which can be reutilized as construction material. Brick in clean hard fill includes but is not limited to refractory brick and mortar. Clean hard fill does not include materials contaminated with hazardous wastes, solid wastes, or infectious wastes (OAC 3745-400-01-E).

Clean Water Act: Federally enacted legislation formally referred to as the Federal Water Pollution Control Act or the Federal Water Pollution Control Act Amendments of 1972. Pub. L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, Pub. L. 97-117, and Pub. L. 100-433 U.S.C. 1251 et. seq.

Clearing: The process of removing vegetation, thereby exposing the soil in such a manner that erosion and off-site sedimentation will be accelerated.

Common Plan of Development: A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one plan.

Compaction: The densification of earthen materials by mechanical or other approved means.

Concept Plan: A drawing of the major features of a proposed Earthwork for the purpose of study and which, if approved, permits proceeding with the preparation of detailed Improvement Plans

Contour Line: A line on a map connecting the points on a land surface that have the same elevation.

Construction Entrance: A point of entrance or exit to a construction site that is stabilized to reduce the tracking of mud and dirt onto public roads by construction vehicles.

Continuing Operation:

1. A construction/development project executed progressively from start to finish without interruption; or
2. A series of small isolated Earthwork done concurrently or intermittently involving the movement of earthen material within the same site or contiguous parcels of land.

Culvert: A structure that conveys water or forms a passageway through an embankment.



Cut: An excavation that lowers an existing elevation.

Damaged Or Diseased Trees: Trees that have a split trunk, broken tops, heart rot, insect or fungus problems that will lead to imminent death, undercut root systems that put the tree in imminent danger of falling, leaning as a result of root failure that puts the tree in imminent danger of falling, or any other condition that puts the tree in imminent danger of being uprooted or falling into or along a stream or onto a structure.

Degradation of a Water Resource: A condition that negatively affects the physical, biological, and/or chemical integrity of the water resource.

Detention Facility: A permanent, man-made structure used for the temporary storage of storm water runoff.

Discharge: Any storm water or non-storm water flow entering the MS4 or a water resource.

Discharger: Any person that allows or causes to allow a storm water or non-storm water discharge to enter the MS4 or a water resource.

Disturbed Area: An area of land subject to any Earthwork.

Ditch: A manmade excavation utilized for the purpose of surface water conveyance or irrigation.

Drainage: Flows from rainfall or otherwise produced by, or resulting from, the elements, storm water discharges and releases or migrations of waters from properties, accumulations, flows, and overflows of water, including accelerated flows and runoffs, flooding and threats of flooding of properties and structures, and other surface and subsurface drainage (ORC 6117.01.A.2).

Earthwork: Operations involving the clearing, grubbing, excavating, filling, or grading of land.

Earthen Material: Soil sediment, rock, sand, gravel and organic material or residue or combination thereof associated with or attached to the soil.

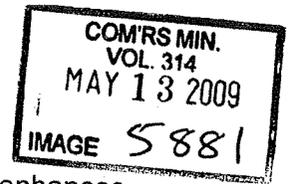
Enforcing Official: An agency, individual, and/or their designated representative(s) authorized by the Board of County Commissioners of Hamilton County or the legislative body of a member Local Jurisdiction of the Hamilton County Storm Water District to lead enforcement of a specific article of these rules and regulations within the appointing jurisdiction.

Erosion: The deterioration of earthen materials, either surface or subsurface, by the actions of water, wind, snow, ice, and gravity or a combination thereof.

Excavation: Any mechanical act, by which earthen materials are removed, displaced or relocated, including the conditions resulting thereof.

Existing Terrain: The condition of the landscape, topography, or environment prior to any proposed Earthwork.

Exploratory Excavation: Temporary excavation for gathering of technical data, which is not made in connection with any permanent construction.



Extended Conveyance: A storm water management practice that replaces and/or enhances traditional open or closed storm drainage conduits by retarding flow, promoting percolation of runoff into the soil, and filtering pollutants during the storm water quality event.

Extended Detention: A storm water management practice that replaces and/or enhances traditional detention facilities by releasing the water quality volume over a duration of at least 24 to 48 hours, retarding flow and allowing pollutants to settle within the facility.

Farm Activity: The science, art and business of cultivating soils, producing crops and raising livestock.

Federal Emergency Management Agency (FEMA): The agency with overall responsibility for administering the National Flood Insurance Program.

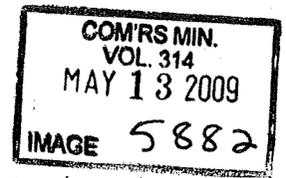
Fill: The deposit of naturally occurring earthen materials or other inert man made materials by mechanical means, including the conditions resulting from engineered or uncontrolled deposits exclusive of building backfill.

Filter Bag: A geotextile manufactured from woven, non-biodegradable polypropylene or polymer material sized to fit a dewatering pump discharge line, or a catch basin or drainage inlet for capture of sediment.

Filtration: A storm water management practice typically composed of a pretreatment unit and a filter bed that detains storm water, filters particulate pollutants, and releases the controlled storm water to a water resource.

Final Stabilization: The condition of an Earthwork where either:

1. All soil disturbing activities at the site are complete and a uniform perennial vegetative cover (e.g., evenly distributed, without large bare areas) with a density of at least 70 percent cover for the area has been established on all unpaved areas and areas not covered by permanent structures or equivalent stabilization measures (such as the use of landscape mulches, rip-rap, gabions or geotextiles) have been employed. In addition, all temporary erosion and sediment control practices are removed and disposed of and all trapped sediment is permanently stabilized to prevent further erosion; or
2. For individual lots in residential construction by either:
 - a. The homebuilder completing final stabilization as specified above, or
 - b. The homebuilder establishing temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner of the need for and benefits of, final stabilization. (Homeowners typically have an incentive to put in the landscaping functionally equivalent to final stabilization as quick as possible to keep mud out of their homes and off sidewalks and driveways.); or
3. For construction projects on land used for agricultural purposes (e.g., pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its pre-construction agricultural use. Areas disturbed that were previously used for agricultural activities, such as buffer strips immediately adjacent to surface waters



and which are not being returned to their pre-construction agricultural use, must meet the final stabilization criteria in (1) or (2) above.

Forebay: The portion of a storm water control facility, typically consisting of excavated pits or cast structures, designed to pre-treat incoming storm water runoff by slowing it and settling suspended solids, extending the useful life of the storm water control facility.

Freeboard: Distance between the peak design water elevation of a storm water control and the top of the sides of the control.

Grading: Modifying the topography of the surface of the land.

Grubbing: Removing vegetation from the soil by digging up roots and stumps.

Hamilton County Soil and Water Conservation District (HCSWCD): An entity organized under Chapter 1515 of the Ohio Revised Code referring to either the Hamilton County Soil and Water Conservation District Board or its designated employees.

Hardship: A condition in which application of the Rules and Regulations of the HCSWD deprives the Owner of a permitted use of the Owner's property.

Hazard (Earthwork Regulations): Any earth condition of considerable consequence to any property, or to public health and safety, which has been established through experience to be of certain or probable consequence, or which can be determined to be, or which is obviously a threat to property or public health and safety, including but not limited to conditions which cause inadequate drainage, erosion, sedimentation, sedimentation of ponds, excess sediment on public roads, disruption of the storm or sanitary sewer system, slope stability problems or imposition of unsafe loads on structures or slopes.

Hazardous Substance: Any substance defined by Section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended.

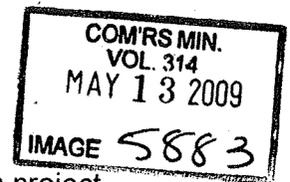
Household Sewage Treatment System (HSTS): Any sewage treatment system, or part of such a system, for a single-family, two-family, or three-family dwelling that receives sewage (OAC 3745-11-01).

Illicit Connection: Any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

Illicit Discharge: Any discharge to a municipal separate storm sewer that is not entirely composed of storm water, as defined at 40 CFR 122.26(b)(2), except discharges authorized under an NPDES permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from fire fighting activities.

Impervious Cover: Any physical surface that does not allow precipitation to directly, effectively absorb or infiltrate into the soil. This may include, but is not limited to, pavement or compacted gravel for roads, streets, parking lots, and driveways, rooftops, sidewalks and other areas not covered by vegetation.

Improvement Plans: Final construction drawings and specifications describing existing site conditions, proposed changes to the site, temporary storm water controls for the construction



phase of the project, and permanent storm water control facilities for the phase of a project. Improvement plans shall address all submittal requirements of the Rules and Regulations of the HCSWD, and as well as fully address the requirements of a storm water pollution prevention plan required under the Ohio EPA Construction General Permit.

Industrial Activity: Activities subject to NPDES Industrial Permits as defined in Chapter 40 of the Code of Federal Regulations, Section 122.26 (b) (14).

Infiltrator: A storm water management practice that does not discharge to a water resource when receiving runoff equivalent to the water quality volume, requiring collected runoff to either infiltrate into the groundwater and/or be consumed by evapotranspiration, thereby retaining storm water pollutants in the facility.

Inlet Protection: A sediment filter or an impounding area around or upstream of a storm drain, drop inlet, or curb inlet that temporarily ponds runoff before it enters the storm drain, allowing sediment to settle.

Instability: A state of disturbed slope equilibrium, identified through observation, measurement, analysis, or experience, which is of probable immediate or long term consequence.

Landslide: The rapid downward and outward movement and loss of stability of earthen material under the influence of gravity in which the movement of the earthen material occurs along an interior surface of sliding.

Local Jurisdiction: The City, County, Township, or Village that owns and operates an MS4 and has ultimate responsibility for compliance with an NPDES permit for storm water discharges from MS4s.

Lot: Any parcel of land occupied or intended for transfer of ownership or for building development, including the open spaces required by the Rules and Regulations of the Hamilton County Regional Planning Commission for Plats and Subdivisions of Land, and other rules and laws.

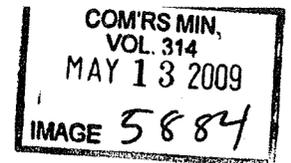
Matting: A natural or manmade material used to cover the soil surface to reduce erosion from rainfall impact, hold soil in place, absorb and hold moisture near the soil surface, and stabilize soils until vegetation is established.

Maximum Extent Practicable: The technology-based discharge standard for MS4s to reduce pollutants in storm water discharges that was established by CWA 402(p) and described at 40 CFR 122.34, as may be amended.

Monitoring: The performance of site inspections of Earthwork, construction activities, drainage systems, and/or storm water controls used to determine compliance with the Rules and Regulations of the HCSWD and any other applicable standards.

Mulching: Application of a mixture of straw, shredded wood fiber, or a hydraulic matrix with a stabilizing emulsion or tackifier to temporarily protect exposed soil from erosion by raindrop impact or wind.

Municipal Separate Storm Sewer System (MS4): A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches,



man-made channels, or storm drains): (1) Owned and operated by the federal government, state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state or federal law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity or a designated and approved management agency under section 208 of the Clean Water Act (CWA) that discharges to waters of the State of Ohio; (2) Designed or used for collecting or conveying solely storm water; (3) Which is not a combined sewer; and (4) Which is not part of a publicly owned treatment works (POTW). [40 CFR 122.26(b)(8)].

National Pollutant Discharge Elimination System (NPDES) Permit: A permit issued by the Environmental Protection Agency (or by a State under authority delegated pursuant to 33 USC ' 1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

Non-Storm Water Discharge: Any conveyance that is not composed entirely of storm water.

Off-Lot HSTS: A HSTS designed to treat home sewage on-site and discharge treated effluent off-lot.

Ohio Rapid Assessment Method: A multi-parameter qualitative index established by the Ohio Environmental Protection Agency to evaluate wetland quality and function.

On-Lot HSTS: A HSTS designed to treat home sewage on-lot with no discharge leaving the lot.

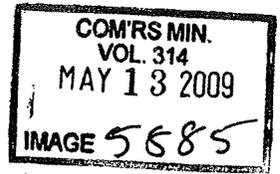
100-Year Floodplain: Any land susceptible to being inundated by water from a base flood, having a one percent chance of being equaled or exceeded in any given year. For the purposes of these regulations, the 100-year floodplain shall be defined by FEMA or in a hydrologic / hydraulic study accepted by the **Enforcing Official** and approved and regulated by the Local Jurisdiction.

Ordinary High Water Mark: That line on the shore or bank of a water resource established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas (33 CFR 328.3 (e)).

Outfall: Any outlet from an MS4 to a water resource, not including open conveyances connecting two MS4s, or pipes, tunnels or other conveyances that connect segments of the same stream or other surface waters of the State and are used to convey waters of the State.

Owner: The person or persons shown in the County Recorder's Office records as the title, deed, or certificate holder of the property, or any agent, or assigned of the title, deed, or certificate holder of record or any person in current control of the property.

Permanent Stabilization: The establishment of permanent vegetation, decorative landscape mulching, matting, sod, rip rap and landscaping techniques to provide permanent erosion control on areas where Earthwork is complete or where no further disturbance is expected for at least one year.



Person: Any individual, corporation, partnership, joint venture, agency, unincorporated association, Municipal Corporation, county agency, state agency, federal government agency, or any combination thereof.

Phase II Program: The Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., 40 C.F.R. Parts 122.30 through 122.37, referred to as NPDES (National Pollutant Discharge Elimination System) Storm Water Phase II Permit Program and the Ohio Water Pollution Control Act (Ohio Revised Code Chapter 6111), and Ohio Administrative Code Chapter 3745-39, referred to as Phase II Storm Water Rules – Small Municipal Separate Storm Sewer Systems (MS4).

Pollution: An alteration of the quality of the waters of the state to a degree that affects such waters for beneficial use or facilities that serve such beneficial uses.

Pollutant: Sewage, industrial waste or other waste as defined by 40 CFR 122.22 and divisions (B) to (D) of section 6111.01 of the Ohio Revised Code (OAC 3745-1-02-B-68). For purposes of these HCSWD Rules and Regulations, a pollutant also includes eroded sediment and non-sediment materials generated by Earthwork or other construction activities.

Post-Construction: The conditions that exist following the completion of Earthwork in terms of topography, vegetation, land use, and the rate, volume, quality, or direction of storm water runoff.

Pre-Construction: The conditions that exist prior to the initiation of Earthwork in terms of topography, vegetation, land use, and the rate, volume, quality, or direction of storm water runoff.

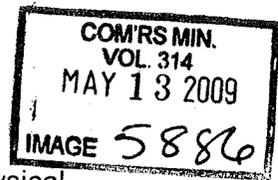
Pre-Construction Meeting: Consultation conducted prior to the beginning of construction activity between all parties associated with the construction of the project including, but not limited to government agencies, contractors, and Owners to review agency requirements and plans as approved and submitted.

Pretreatment: A structure, feature, appurtenance, or pollution prevention practice, or combination thereof, either aboveground or belowground, that is used as a component of a storm water management system to remove a sufficient fraction and/or type of the incoming pollutants to facilitate maintenance and/or prevent failure of a downstream storm water control.

Professional Engineer: An individual licensed in the State of Ohio to practice in the field of engineering, pursuant to Ohio Revised Code Sections 4733.01 to 4733.23.

Professional Surveyor: An individual licensed in the State of Ohio to practice in the field of surveying, pursuant to Ohio Revised Code Sections 4733.01 to 4733.23.

Qualified Inspection Personnel: A person knowledgeable in the principles and practice of storm water facility construction and maintenance, erosion prevention, and sediment control, who possesses the skills to assess all conditions that could impact storm water quality and to assess the effectiveness of any best management practice, storm water control facility, sediment control measure, and erosion prevention measure selected to control the quality of storm water discharges.



Record Plat: A drawing prepared by a Professional Surveyor that documents the physical features of the improvements to a site, including but not limited to parcel boundaries, easements, setbacks, and certifications.

Redevelopment: A change or improvement made to a portion of an existing property where impervious surfaces had previously existed.

Retrofit: Place a storm water control facility within an existing developed area that does not already drain into a facility providing an equivalent level of storm water control.

Revocation of Performance Bond: A process where an appropriate governmental entity seizes the principal of a Performance Bond or portions thereof.

Riprap: A permanent cover of rock used to stabilize streams, provide in-stream stability, and provide a stabilized outlet below concentrated flows.

Riparian Area: Transition area adjacent to a stream and composed of trees, shrubs, and surrounding vegetation which serve to stabilize erodible soil, reduce flood size flows, filter and settle out runoff pollutants, increase stream shading, and enhance wildlife habitat.

Runoff: Precipitation that moves over the land surface, as sheet flow, in open channels, or in a storm water conveyance system through the drainage area.

Sediment: Solid material both mineral and organic, which is in suspension, and is being transported or has been moved from its site of origin by water, wind, ice, snow, or gravity, and has come to rest on the earth's surface, at, above, or below sea level.

Sediment Basin: A temporary settling pond constructed to release surface water runoff at a controlled rate. It is designed to slowly release surface water runoff, detaining it long enough to allow the suspended solids and most of the sediment to settle out of the water.

Sediment Trap: A temporary settling pond having a simple outlet structure stabilized with geotextile and riprap.

Sedimentation: The process of accumulation of earth materials/sediment resulting from erosion.

Site: Any lot, parcel of land, or common plan of development.

Slope: The measurement of the inclination of the ground surface. Slope may be expressed as a ratio of horizontal distance to vertical distance (e.g., 4(H):1(V)) or as the quotient of vertical distance divided by horizontal distance expressed as a decimal or as a percentage.

Stability: A state of slope equilibrium, identified through observation, measurement, analysis or experience, which affords an adequate margin of safety against immediate or long term development of instability and/or movement.

Stabilization: The use of best management practices that reduce or prevent soil erosion by means of storm water runoff, trench dewatering, wind, ice, gravity, or a combination thereof.

Storm Water: Any surface flow, runoff, and drainage resulting from a precipitation event consisting entirely of water from any form of natural precipitation, including snow melt.



Stream: A surface water having a channel with a well-defined bed and bank, either natural or artificial, that confines and conducts continuously or periodically flowing water in such a way that creates an ordinary high-water mark.

Stream Bank: The side of a stream channel bounded by the stream bed and the ordinary high water mark of the stream.

Stream Bed: Bottom of a stream.

Stream Crossing: Any bridge, box, arch, culvert, truss, or other type of structure intended to convey people, animals, vehicles, or materials from one side of a stream to another. This does not include private, non-commercial footbridges or pole mounted aerial electric or telecommunication lines, nor does it include below grade utility lines.

Swale: An artificial conveyance that may contain contiguous areas of standing or flowing water only following a precipitation event, or is planted with or has stabilized vegetation suitable for soil stabilization, storm water treatment, and nutrient uptake, or is designed to take into account the soil erodibility, soil percolation, slope, slope length, and contributing area so as to prevent erosion and reduce the pollutant concentration of a given volume.

Temporary Stabilization: The establishment of temporary vegetation, mulching, geotextiles, sod, preservation of existing vegetation and other techniques capable of quickly establishing cover over Earthwork to provide erosion prevention between construction operations.

Top of Stream Bank: The ordinary high water mark of a stream, also known as the bankfull depth of the stream channel.

Topsoil: Surface and upper surface soils which are presumably darker colored; fertile soil materials ordinarily rich in organic matter or humus debris.

Total Suspended Solids: solids in water that are trapped by a filter (usually with a pore size of 0.45 micrometers).

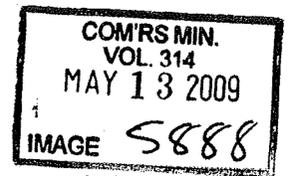
Variance: A modification of the Rules and Regulations of the HCSWD that will not be contrary to the public interest and where, due to conditions peculiar to a specific property and not the result of the action of the applicant, a literal enforcement of the Rules and Regulations would result in unnecessary hardship to the applicant.

Water Quality Volume (WQ_v): The volume of storm water runoff from a contributing watershed that must be captured and treated prior to discharge from the developed site after construction is complete. WQ_v is based on the expected runoff generated by the mean storm precipitation volume from post-construction site conditions at which rapidly diminishing returns in the number of runoff events captured begins to occur.

Water Resource: Any public or private surface water body; including wetlands; the area within the ordinary high water level of lakes and ponds; as well as the area within the ordinary high water level of any stream (either natural or artificial) which confines and conducts continuous or intermittent flow.

Watershed: The total drainage area contributing storm water runoff to a single point.

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Wet Extended Detention Basin: A small artificial lake overlain with a storage volume equal to the lake volume and designed to remove pollutants from storm water.

Wetlands: Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas (40 CFR 232, as amended).

Work Area: A specifically indicated area of land on which Earthwork operations are under permit; may be a portion of a site or the entire site.