Great Bay Pollution Tracking and Accounting Pilot Project

GLOSSARY OF COMMON TERMS

**Purpose:** This document includes definitions for common terms that are likely to be used and discussed during process meetings and in documents for the Great Bay Pollution Tracking and Accounting Pilot Project (PTAPP). This is a living document and will change over time as more terms are added and defined.

ACCOUNTING—A quantitative method for inventorying and tabulating planning, management, and conservation practices that affect hydrology and water quality. *(As defined by the PTAPP group)*

ADAPTIVE MANAGEMENT – Management of resources that is a structured, iterative process of robust decision making in the face of uncertainty, with an aim to reducing uncertainty over time via system monitoring. In this way, decision making simultaneously meets one or more resource management objectives and, either passively or actively, accrues information needed to improve future management.

ADMINISTRATIVE ORDER ON CONSENT (“Consent Order”) – A legal agreement signed by EPA and an individual, business, or other entity through which the violator agrees to pay for correction of violations, take the required corrective or cleanup actions, or refrain from an activity. It describes the actions to be taken, may be subject to a comment period, applies to civil actions, and can be enforced in court.

BEST MANAGEMENT PRACTICES (BMPs) - A structural or non-structural device designed to temporarily store or treat urban stormwater runoff in order to mitigate flooding, reduce pollution and provide other amenities.

BIORETENTION – A water quality practice that utilizes vegetation and soils to treat urban stormwater runoff by collecting it in shallow depressions, before filtering through an engineered bioretention planting soil media.

BUFFER – A special type of preserved area along a watercourse or wetland where development is restricted or prohibited. Buffers protect and physically separate a resource from development. Buffers also provide stormwater control flood storage and habitat values. Wherever possible, riparian buffers should be sized to include the 100-year floodplain as well as steep banks and freshwater wetlands.

DISTURBED AREA – An area in which the natural vegetative soil cover has been removed or altered and, therefore, is susceptible to erosion.

ECOSYSTEM SERVICES - The benefits of natural systems to individuals, communities, and economies. These benefits include provisioning services such as food and water; regulating services such as flood and disease control; cultural services such as spiritual, recreational, and cultural benefits; and supporting services such as nutrient cycling that maintain the conditions for life on Earth.

EFFECTIVE IMPERVIOUS COVER (EIC) – The total impervious surface areas less the area of disconnected impervious cover (areas where runoff is captured and infiltrated or otherwise treated).
ENVIRONMENTAL (NATURAL RESOURCE) PROTECTION - Policies and procedures aimed at conserving natural resources, preserving the current state of natural environments and, where possible, reversing degradation. Any activity to maintain or restore environmental quality through preventing the emission of pollutants or reducing the presence of polluting substances in environmental media, and preventing physical removal or degradation of natural resources.

FILTRATION – The process of physically or chemically removing pollutants from runoff. Practices that capture and store stormwater runoff and pass it through a filtering media such as sand, organic material, or the native soil for pollutant removal. Stormwater filters are primarily water quality control devices designed to remove particulate pollutants and, to a lesser degree, bacteria and nutrients.

GROUNDWATER RECHARGE – The process by which water that seeps into the ground, eventually replenishing groundwater aquifers and surface waters such as lakes, streams, and the oceans. This process helps maintain water flow in streams and wetlands and preserves water table levels that support drinking water supplies.

GROUNDWATER RECHARGE VOLUME – The post-development design recharge volume (i.e., on a storm event basis) required to minimize the loss of annual pre-development groundwater recharge. The Rev is determined as a function of annual pre-development recharge for site-specific soils or surficial materials, average annual rainfall volume, and amount of impervious cover on a site.

IMPAIRED WATERS – Those waterbodies not meeting water quality standards. Pursuant to Section 303(d) of the federal Clean Water Act, each state prepares a list of impaired waters (known as the 303(d) list) which is presented in the state’s Integrated Water Report as Category 5 waters. Those impaired waters for which a TMDL has been approved by US EPA and is not otherwise impaired, are listed in Category 4A.

IMPERVIOUS COVER – Those surfaces that cannot effectively infiltrate rainfall consisting of surfaces such as building rooftops, pavement, sidewalks, driveways, compacted gravel (e.g., driveways and parking lots).

INfiltrATION – the process of runoff percolating into the ground (subsurface materials). Stormwater treatment practices designed to capture stormwater runoff and infiltrate it into the ground over a period of days.

LOW IMPACT DEVELOPMENT (LID) - Low impact development is a site planning and design strategy intended to maintain or replicate predevelopment hydrology through the use of site planning, source control, and small-scale practices integrated throughout the site to prevent, infiltrate and manage runoff as close to its source as possible. Examples of LID strategies are pervious pavement, rain gardens, green roofs, bioretention basins and swales, filtration trenches, and other functionally similar BMPs located near the runoff source.

MAXIMUM EXTENT PRACTICABLE (MEP) - To show that a proposed development has met a standard to the maximum extent practicable, the applicant must demonstrate the following: (1) all reasonable efforts have been made to meet the standard, (2) a complete evaluation of all possible management measures has been performed, and (3) if full compliance cannot be achieved, the highest practicable level of management is being implemented.
MITIGATION – Activities, strategies, policies, programs, actions that, over time, will serve to avoid, minimize, or compensate for (by treating or removing pollution sources) the impacts to or disruption of water quality and water resources.

MS4 – Refers to the Small Municipal Separate Storm Sewer System General Permit - the MS4 General Permit - issued by the EPA under the Clean Water Act. MS4 applies to municipalities that contain any portion of an urbanized area as defined by the Census. It applies to stormwater conveyances owned by a State, city, town, or other public entity that discharge to ‘Waters of the United States’. The MS4 Permit requires that operators of small MS4s develop a Storm Water Management Program that uses appropriate Best Management Practices (BMPs) for each of the six minimum control measures required in the MS4 permit.

NATIVE VEGETATION AND PLANTINGS - Plants that are indigenous to the region, adapted to the local soil and rainfall conditions, and require minimal supplemental watering, fertilizer, and pesticide application.

POLLUTANT LOAD – means an amount of pollutants that is introduced into a receiving waterbody measured in units of concentration or mass per time (i.e. concentration (mg/l) or mass (lbs/day)).

REDEVELOPMENT - Any construction, alteration, or improvement that disturbs a total of 10,000 square feet or more of existing impervious area where the existing land use is commercial, industrial, institutional, governmental, recreational, or multifamily residential. Building demolition is included as an activity defined as “redevelopment”, but building renovation is not. Similarly, removing of roadway materials down to the erodible soil surface is an activity defined as “redevelopment,” but simply resurfacing of a roadway surface is not. Pavement excavation and patching that is incidental to the primary project purpose, such as replacement of a collapsed storm drain, is not classified as redevelopment. In general, the requirements in this manual do not apply to projects or portions of projects when the total existing impervious area disturbed is less than 10,000 square feet. However, specific regulatory programs may impose additional requirements. Any creation of new impervious area over portions of the site that are currently pervious is required to comply fully with the requirements of this manual, with the exception of infill projects.

RETENTION – The amount of precipitation on a drainage area that does not escape as runoff. It can be expressed as the difference between total precipitation and total runoff from an area.

TRACKING—Information about activities that may contribute to increases or decreases in pollutant loading. (As defined by the PTAPP group)

TOTAL MAXIMUM DAILY LOAD (TMDL)—A regulatory term in the U.S. Clean Water Act, describing a value of the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards.

TOTAL NITROGEN (TN) –Total nitrogen is the sum of total Kjeldahl nitrogen (ammonia, organic and reduced nitrogen) and oxidized forms of nitrogen (nitrate –nitrite).

TOTAL PHOSPHORUS (TP) – A measurement of all the forms of phosphorus in a water sample (orthophosphate, condensed phosphate, and organic phosphate).
TOTAL SUSPENDED SOLIDS (TSS) – The total amount of soils particulate matter which is suspended in the water column.

WATER QUALITY VOLUME - The storage needed to capture and treat 90% of the average annual stormwater runoff volume. In Rhode Island, this equates to 1-inch of runoff from impervious surfaces.

WATERSHED – All land and water area from which runoff may run to a common (design) discharge point.