

CSO OPERATIONAL PLAN

GLOSSARY

A

ACPWQ: Allen County Partnership for Water Quality – ACPWQ was created by the City and other local governmental entities to help educate the public and the media about water resource issues.

Activated Sludge: A result of the following process: primary effluent is mixed with bacteria-laden sludge and then agitated and aerated to promote biological treatment, speeding the breakdown of organic matter in raw sewage undergoing secondary waste treatment.

Algae: Simple rootless plants that grow in sunlit waters in proportion to the amount of available nutrients. They can affect water quality adversely by lowering the dissolved oxygen in the water. They are food for fish and small aquatic animals.

AO: Administrative Order

Aqua Indiana: A private utility serving large areas of western and northern Fort Wayne and Allen County.

B

Biosolids: They are nutrient-rich organic materials resulting from the treatment of domestic sewage in a treatment facility. When treated and processed, these residuals can be recycled and applied as fertilizer to improve and maintain productive soils and stimulate plant growth.

BMR: Baseline Monitoring Report

Board of Public Works: The Utilities regulatory body, responsible for approving the Utilities rules and regulations and the appeal body for decisions and/or AOs made or issued by the Superintendent regarding industrial users.

BOD: Biological Oxygen Demand – A measure of the amount of oxygen consumed in the biological processes that break down organic matter in water. The greater the BOD, the greater the degree of pollution.

C

Catch Basin: Structures used to collect storm water entering Fort Wayne’s combined sewer system. A catch basin is a modified inlet where the invert of the outlet pipe is several feet above the bottom of the structure and where a 90 degree trap is installed on the end of the outlet pipe.

CCC Limits: Criterion Continuous Concentration – An estimate of the highest concentration of material in the water column to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect.

CCTV: Closed Circuit Television

CFR: Code of Federal Regulations

City: The City of Fort Wayne

Collection System: Pipes used to collect and carry wastewater from individual sources to an interceptor sewer that will carry it to a treatment facility.

CMC Limits: Criterion Maximum Concentration – An estimate of the highest concentration of a material in the water column to which an aquatic community can be exposed briefly without resulting in an unacceptable effect.

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CMMS: Computerized Maintenance Management System keeps inventory of equipment, access parts information, and schedule maintenance activities and maintain a history of maintenance performed.

CSO: Combined Sewer Overflow – During heavy periods of rainfall or snowmelt, the wastewater volume in a combined sewer system can exceed the capacity of the sewer system or treatment plant. For this reason, combined sewer systems are designed to overflow occasionally and discharge excess wastewater directly to nearby streams, rivers, or other water bodies.

CSS: Combined Sewer System – A sewer system that carries both sewage and storm-water runoff. Normally, its entire flow goes to a waste treatment plant, but during wet weather, the volume may be so great as to cause overflows of untreated mixtures of storm water and sewage into receiving waters. Storm-water runoff may also carry toxic chemicals from industrial areas or streets into the sewer system.

CSSCIP: City’s Combined Sewer System Capacity Improvement Program

D

Dam: A barrier to obstruct the flow of water.

Designated Use: Uses specified in water quality standards for each water body or segment whether or not they are being attained (40 CFR 131.3).

DO: Dissolved Oxygen – The oxygen freely available in water, vital to fish and other aquatic life and for the prevention of odors. DO levels are considered a most important indicator of a water body’s ability to support desirable aquatic life. Secondary and advanced waste treatment and generally designed to ensure adequate DO in waste-receiving waters.

DMR: Discharge Monitoring Report

DWO: Dry Weather Overflow – An overflow or discharge from a combined or sanitary sewerage system or storm drainage system that is not the result of wet-weather flows into the system. These flows may be the result of a variety of processes. Dry-weather overflows from combined sewer systems are generally not permitted.

E

Existing Use: Uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards (40 CFR 131.3).

EPA: U.S. Environmental Protection Agency

G

GIS: Geographic Information System – GIS is a term used to describe the creation, manipulation, analysis, and storage of spatial data. This technology integrates common database operations such as query and statistical analysis with geographic data through visualization and maps. These attributes distinguish GIS from other information systems and make it valuable for exploring options, explaining results, and deciding strategies.

I

IDEM: Indiana Department of Environmental Management

IMS: Infrastructure Management System – Electronic database to track maintenance activities

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Industrial Pre-Treatment Program: A City program that handles the process to reduce, eliminate, or alter the nature of wastewater pollutants from non-domestic sources (mostly industrial) before they are discharged into Publicly Owned Treatment Works (POTWs).

Infiltration: The penetration of water entering sewers or pipes through defective joints, connections, or manhole walls.

Inflow: Stormwater entering a sewer system from sources such as basement drains, manholes, and storm and driveway drains.

Interceptor Sewer: Large sewer lines that, in a combined system, control the flow of sewage to the treatment plant. In a storm, they allow some of the sewage to flow directly into a receiving stream, thus keeping it from overflowing onto the streets. Also used in separate systems to collect the flows from main and trunk sewers and carry them to treatment points.

IU: Industrial User

L

LIMS: Laboratory Information Management System operates to collect analyze and report laboratory results.

LTCP: Long-Term Control Plan – A document developed by CSO communities to describe existing waterway conditions and various CSO abatement technologies that will be used to control overflows.

M

Manhole: A hole, usually with a cover, through which a person may enter a sewer, boiler, drain, or similar structure.

MGD: Million Gallons per Day – Measure of flow.

MRO: Monthly Report of Operations

MSDS: Material Safety Data Sheet

N

NMC: Nine Minimum Controls – Measures that can reduce CSOs and their effects on receiving water quality and that should not require significant engineering studies or major construction.

NOV: Notice of Violation

NOW: Notice of Warning

NPDES: National Pollutant Discharge Elimination System – A national program under Section 402 of the Clean Water Act (CWA) for regulation of discharges from point sources to waters of the United States. Discharges are illegal unless authorized by an NPDES permit.

O

O&M: Operations and Maintenance

Organic Matter: Carbonaceous waste contained in plant or animal matter and originating from domestic or industrial sources.

P

PCB: Polychlorinated Biphenyls

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pH: An expression of the intensity of the basic or acid condition of a liquid; may range from 0 to 14, where 0 is the most acid and 7 neutral. Natural waters usually have a pH between 6.5 and 8.5.

Photosynthesis: The process in green plants and certain other organisms by which carbohydrates are synthesized from carbon dioxide and water using light as an energy source. Most forms of photosynthesis release oxygen as a byproduct.

POTW: Publicly Owned Treatment Works

Primary Treatment: Primary treatment is the second step in treatment and separates suspended solids and greases from wastewater. Waste-water is held in a quiet tank for several hours allowing the particles to settle to the bottom and the greases to float to the top. The solids drawn off the bottom and skimmed off the top receive further treatment as sludge. The clarified wastewater flows on to the next stage of wastewater treatment. Clarifiers and septic tanks are usually used to provide primary treatment. Removal of floating solids and suspended solids, both fine and coarse, from raw sewage.

Pump Station (Lift Station): A station positioned in the public sewer system at which wastewater is pumped to a higher level.

R

Regulator: Engineered bottleneck in the collection system.

Run Off: That part of precipitation, snow melt, or irrigation water that runs off the land into streams or other surface water. It can carry pollutants from the air and land into receiving waters.

S

SAG: Sewer Advisory Group – Fort Wayne’s SAG is a voluntary citizen-based group that has been actively helping the City make decisions about its sewer utility operations since 1995.

Secondary Treatment: The second step in most publicly owned waste treatment systems in which bacteria consume the organic parts of the waste. It is accomplished by bringing the waste, bacteria, and oxygen in trickling filters or in the activated sludge process. This treatment removes floating and settleable solids and about 90 percent of the oxygen-demanding substances and suspended solids. Disinfection is the final stage of secondary treatment.

Sewage: The waste and wastewater produced by residential and commercial sources and discharged into sewers.

SIP: Structure Inventory Program

SIU: Significant Industrial User – An indirect discharger that is the focus of control efforts under the national pretreatment program; includes all indirect dischargers subject to national categorical pretreatment standards, and all other indirect dischargers that contribute 25,000 gpd or more of process wastewater, or which make up five percent or more of the hydraulic or organic loading to the municipal treatment plant, subject to certain exceptions [40 CFR 122.23(b)(9)]

SOP: Standards of Operation

SPCC: Spill Prevention, Control and Countermeasure Plan

SR CER: Stream Reach Characterization and Evaluation Report

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SSO: Sanitary Sewer Overflow – Untreated or partially treated sewage overflows from a sanitary sewer collection system.

STF: Sewer Task Force – STF was originally organized to develop recommendations on how the City should proceed to reduce the likelihood of sewer backups into basements. STF is now known as the Sewer Advisory Group (SAG).

Storm Sewer: A system of pipes (separate from sanitary sewers) that carry water runoff from buildings and land surfaces.

T

Trunk Sewer: A sewer that receives many tributary branches and serves a large territory.

TSS: Total Suspended Solids – A measure of the suspended solids in wastewater, effluent, or water bodies, determined by tests for “total suspended non-filterable solids.”

U

U.S.EPA: United States Environmental Protection Agency

UTA: Utility Administration Group

V

VTN: Verbal Telephone Notice

W

Water Quality Criteria: Levels of water quality expected to render a body of water suitable for its designated use. Criteria are based on specific levels of pollutants that would make the water harmful if used for drinking, swimming, farming, fish production, or industrial processes.

WQS: Water Quality Standards – State-adopted and EPA-approved ambient standards for water bodies. The standards prescribe the use of water body and establish the water quality criteria that must be met to protect designated uses.

WEF: Water Environment Federation

Weir: A wall or obstruction used to control flow from settling tanks and clarifiers to ensure a uniform flow rate and avoid short-circuiting.

WPCM: Water Pollution Control Maintenance

WPCP: Water Pollution Control Plant – Any equipment, device, unit, structure, etc., that is used to control, prevent, pretreat, or treat any discharge or threatened discharge of pollutants into any waters of the State of Indiana, including surface and subsurface waters and public or private sewerage systems.

WQS: Water Quality Standards – Regulations that are designed to protect the surface waters of the State. They contain statements and numeric limits that are adopted through administrative rule-making procedures. The standards set forth the water quality needed to protect the uses of the water, such as swimming, public water supply, and the propagation and growth of aquatic life.