



CAPACITY, MANAGEMENT, OPERATIONS,
AND MAINTENANCE (CMOM) PROGRAM
AND IMPLEMENTATION PLAN

**Comprehensive Training
Program Plan**

June 2016

CITY OF FORT SMITH, ARKANSAS

Development of a Capacity, Management, Operation, and Maintenance Program (CMOM) and Assessment and Remediation Plan for Effluent Limit Exceedances

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Robert Roddy

Robert Roddy, Interim Director of Utilities
City of Fort Smith, AR
Utility Department

6/22/16

Date

Comprehensive Training Program Plan

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List of Acronyms

ADEQ	Arkansas Department of Environmental Quality
CCA	Continuing Capacity Assurance
CCTV	Closed Circuit Television
CMOM	Capacity, Management, Operations, & Maintenance
CSSA	Continuing Sewer System Assessment
CTP	Comprehensive Training Plan
CWA	Clean Water Act
DMR	Discharge Monitoring Report
EPA	U.S. Environmental Protection Agency
FOG	Fats, Oil and Grease
GIS	Geographic Information System
I&I	Infiltration and Inflow
IMS	Information Management System
MACP	NASSCO's Manhole Assessment and Certification Program
MGD or mgd	Million Gallons per Day
NASSCO	National Association of Sewer Service Companies
NPDES	National Pollutant Discharge Elimination System
OERP	Overflow Emergency Response Plan
PACP	NASSCO's Pipe Assessment and Certification Program
SOP	Standard Operation Procedure
SSA	Sewer System Assessment
SSO	Sanitary Sewer Overflow
U.S.	United States
WCTS	Wastewater Collection and Transmission System
WWTP	Wastewater Treatment Plant

Definitions

Unless defined otherwise herein, or expressly stated in the City of Fort Smith Sewer Use Ordinance, terms used in in the plans comprising the CMOM Program and Implementation Plan shall have the meanings given to those terms in the CWA and the EPA Consent Decree lodged for City of Fort Smith, Arkansas. The terms and acronyms are defined as follows:

ADEQ shall mean the Arkansas Department of Environmental Quality, and any successor departments or agencies of the State of Arkansas.

Annual Report shall mean the report to be submitted annually pursuant to Section X of the Consent Decree.

Article shall mean a portion of Section V ("Comprehensive Remedial Requirements" Section) of the Consent Decree.

Basin shall mean a section of a Sewershed that is a distinct wastewater collection area, and designated by Fort Smith as such.

Building/Private Property Backup shall mean a wastewater backup into a building and/or a wastewater overflow onto private property that is caused by blockages, flow conditions or other malfunctions in the WCTS. "Building/Private Property Backup" does not include a wastewater backup into a building and/or a wastewater overflow onto private property that is caused solely by a blockage or other malfunction of a Private Service Line or other piping or conveyance system that Fort Smith does not own or operate.

Calendar Year shall mean the twelve (12) month period starting on January 1 and ending on December 31 of a given year.

Capacity Constraint shall mean those discrete components, or groups of components of the WCTS that are determined by the City, consistent with Section V, Article Four ("Capacity Assessment and Hydraulic Modeling") of the Consent Decree to have capacity deficiency issues that have caused or significantly contributed to previous capacity-related SSOs; that are likely to cause or significantly contribute to future capacity-related SSOs; and/or that are identified as overflow locations for any storm event presented in Section V, Article Four, Paragraph 30.

City or Fort Smith shall mean the City of Fort Smith, Arkansas.

Clean Water Act or CWA shall mean the Federal Clean Water Act found at 33 U.S.C. §§ 1251- 1387.

CMOM or Capacity, Management, Operations, and Maintenance shall mean a program of accepted industry practices to properly manage, operate and maintain sanitary sewer collection, transmission and treatment systems, investigate capacity constrained areas of these systems, and respond to SSO events, including as identified by the Guide for Evaluating Capacity, Management, Operation, and Maintenance (CMOM) Programs (EPA, Jan. 2005).

Consent Decree or Decree shall mean the Decree (and all Appendices) lodged by the U.S. EPA against the City of Fort Smith.

Consultant shall mean a professional engineer licensed in the State of Arkansas or other recognized professional within a field of practice, with appropriate qualifications, experience and adequate staff and resources necessary to undertake any program plan, study, analysis, design or report required by the terms of the Consent Decree.

Contractor shall mean a person or entity who in pursuit of its business undertakes to perform a job or piece of work, retaining in himself control of means, method and manner of accomplishing the desired result.

Critical Response Time shall mean the time interval between activation of the high wet well level alarm at a Pump Station and the first SSO from the WCTS tributary to that Pump Station under peak dry-weather flow conditions or under peak wet-weather flow conditions (generated by the analysis rainfalls presented in Section V, Article Four ("Capacity Assessment and Hydraulic Modeling") of the Consent Decree), whichever weather conditions prevail at the time of the SSO.

Cross-Connection shall mean any constructed connection, whether by pipe or any other means, between any part of the WCTS and any part of a storm water drainage system that is capable of conveying flow between the two systems.

Date of Lodging shall mean the date the United States filed a copy of the Consent Decree signed by all Parties with the District Court, along with the Complaint, prior to submitting the Consent Decree for publication in the Federal Register to provide an opportunity for public review and comment thereon. The Date of Lodging for the City's Consent Decree is January 02, 2015 (1/2/2015).

Day or Days shall mean a calendar day or calendar days unless expressly stated to be a business day or business days. In computing any period of time under the Consent Decree, where the last Day would fall on a Saturday, Sunday, or a Federal or State holiday, the period shall run until the close of the next business day.

Deliverable shall mean any written document required to be prepared and/or submitted by or on behalf of Fort Smith pursuant to the Consent Decree.

Direct Discharge shall mean a sewer pipe installed to convey wastewater from a sanitary sewer for release into the environment.

Environmental Protection Agency or EPA shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

Equalization Facilities or EQ Facilities shall mean those components of the WCTS designated, designed or intended for the temporary storage of wet-weather wastewater flows.

Fats, Oil and Grease or FOG shall mean fats, oil and grease, whether petroleum-based, mineral-oil-based, animal-based or vegetable-based.

FOG Control Device shall mean any grease interceptor, grease trap, or other mechanism, device, or process that attaches to or is applied to wastewater plumbing fixtures and/or Private Service Lines to collect, contain, or remove FOG from the wastewater stream of a FOG Generator prior to discharge into the WCTS.

FOG Control Program Plan or Fats, Oil and Grease Control Program Plan shall mean Fort Smith's program to control discharge of FOG into the WCTS as developed and approved under **Section V, Article Seven, Paragraph 37** of the Consent Decree.

FOG Generator shall mean any food service establishment or food-processing establishment that discharges FOG into the WCTS, provided, however, that those establishments covered by the City's industrial user program shall not be considered a FOG Generator for the purposes of the Consent Decree.

Force Main shall mean any pipe that receives and conveys, under pressure, wastewater from the discharge side of a pump. A Force Main is intended to convey wastewater under pressure.

Gravity Sewer Line shall mean a pipe that receives, contains and conveys wastewater not normally under pressure, but intended to flow unassisted under the influence of gravity.

Small-Diameter Gravity Sewer Lines shall mean Gravity Sewer Lines that are less than twenty-four (24) inches in diameter.

Large-Diameter Gravity Sewer Lines shall mean Gravity Sewer Lines that are twenty-four (24) inches or greater in diameter.

Infiltration as defined by 40 C.F.R. § 35.2005(b)(20) shall mean water other than wastewater that enters a WCTS (including sewer service connections and foundation drains) from the ground through such means as defective pipes, pipe joints, connections, or manholes.

Inflow as defined by 40 C.F.R. § 35.2005(b) (21) shall mean water other than wastewater that enters a WCTS (including sewer service connections) from sources such as, but not limited to, roof leaders, cellar drains, yard drains, area drains, drains from springs and swampy areas, manhole covers, cross connections between storm sewers and sanitary sewers, catch basins, cooling towers, storm water, surface runoff, street wash waters, or drainage.

Infiltration and Inflow or I&I shall mean the total quantity of water from Infiltration and Inflow without distinguishing the source.

Interest shall mean interest accruing on a sum calculated in the manner provided by 28 U.S.C. § 1961.

Manhole Assessment and Certification Program or MACP shall mean the **National Association of Sewer Service Companies (NASSCO)** Manhole Assessment and Certification Program.

Massard Permit shall mean NPDES Permit Number AR0021750 issued to City pursuant to Section 402 of the Clean Water Act, 33 U.S. § 1342, and the Arkansas Water and Air Pollution Control Act, Ark. Code Ann. § 8-4-10, et seq., for the Massard POTW and any future extended, modified or reissued permit.

Massard WWTP shall mean the publicly owned treatment works that is owned and operated by the City and that is located in Fort Smith with an address of **1609 North 9th Terrace, Barling, Arkansas**.

Month shall mean one calendar month running from a numbered day to the same numbered day of the following calendar month, regardless of whether the particular month has 28, 29, 30, or 31 days. If a triggering event would occur on a day of the month that does not exist (for example, February 30), then the event shall be due on the first day of the following month (for example, March 1).

NASSCO shall mean the National Association of Sewer Service Companies.

P Street Permit shall mean NPDES Permit Number AR0033278 issued to City pursuant to Section 402 of the Clean Water Act, 33 U.S.C. § 1342, and the Arkansas Water and Air Pollution Control Act, Ark. Code Ann. § 8-4-10, et seq., for the P Street POTW and any future, extended, modified or reissued permit.

P Street WWTP shall mean the publicly owned treatment works that is owned and operated by City and that is located at **13 North P Street in Fort Smith, Arkansas**.

Pipe Assessment and Certification Program or **PACP** shall mean the NASSCO Pipe Assessment and Certification Program.

Pipe Segment shall mean the portion of a Gravity Sewer Line extending from manhole to manhole.

Private Service Line shall mean a sewer line which is not owned or operated by City, but which conveys wastewater from a building to a main line of the WCTS.

Private Service Line Release shall mean any spill, release, or diversion of sewage from a Private Service Line to any location other than the WCTS caused solely by a blockage or other malfunction in that Service Line, even if the release does not reach Waters of the State or waters of the United States.

Pump Station or **Pumping Station** shall mean facilities owned or operated by Fort Smith that contain pumps that lift wastewater from a lower to a higher hydraulic elevation, including all related electrical, mechanical, and structural systems necessary to the operation of that Pump Station within the WCTS.

Recurring Private Service Line Release shall mean a Private Service Line Release that has occurred within three (3) years of a prior Private Service Line Release at the same location.

Recurring SSO, Recurring Dry-Weather SSO, and Recurring Wet-Weather SSO. A "Recurring SSO" shall mean any SSO that has occurred within three (3) years of a prior SSO that occurred at the same location under any weather conditions (wet or dry). A "Recurring Dry-Weather SSO" shall mean an SSO that has occurred during dry weather within three (3) Years of a prior SSO at the same location that also occurred during dry weather. A "Recurring Wet-Weather SSO" shall mean an SSO that has occurred during wet weather within three (3) Years of a prior SSO at the same location that also occurred during wet weather.

Remedial Measures shall mean spot repairs, trenchless sewer rehabilitation, sewer replacement, repair or reconstruction, and any other appropriate WCTS improvement technique for resolving condition deficiencies and/or capacity deficiencies in a particular system asset or group of assets within the WCTS, in accordance with **Appendix D** of the Consent Decree ("Remedial Determination Process"), that have caused or significantly contributed to previous SSOs, and/or, that are likely to cause or significantly contribute to future occurrence of SSOs.

Sanitary Sewer Overflow or **SSO** shall mean any spill, release, or diversion of sewage from the WCTS, including: (1) an overflow that results in a discharge to Waters of the State or waters of the United States, and (2) an overflow of wastewater, including a wastewater backup into a building or wastewater overflow onto private property, such as a Building/Private Property Backup (other than a backup caused solely by a blockage or other malfunction in a privately owned sewer or building line

(i.e. a "Private Service Line")), even if that overflow does not reach Waters of the State or waters of the United States.

Sewershed shall mean a section of City's WCTS that is a distinct drainage or wastewater collection area and designated as such by City for the P Street WWTP and the Massard WWTP.

State of Arkansas or **State** shall mean the State of Arkansas acting on behalf of ADEQ.

Sub-basin shall mean a section of a Basin that is a distinct wastewater collection area and designated by Fort Smith as such.

Tabulation shall mean a document in a format containing text searchable cells or fields that is also sortable by data category.

United States or **U.S.** shall mean the United States of America, acting on behalf of EPA.

Wastewater Treatment Plant or WWTP shall mean the Massard or P Street wastewater treatment plants and components thereof.

Wastewater Collection and Transmission System or WCTS shall mean the sanitary sewer collection, retention and transmission systems for both the Massard WWTP Sewershed and the P Street WWTP Sewershed, including all pipes, Force Mains, Gravity Sewer Lines, Pump Stations, EQ Basins, manholes and appurtenances thereto, that are owned or operated by City at any time from the Date of Lodging of the Consent Decree until its termination under Section XXIV.

Waters of the State shall mean all streams, lakes, marshes, ponds, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies of accumulations of water, surface and underground, natural and artificial, public or private, which are contained within, flow through, or border upon the State of Arkansas, or any portion of the State of Arkansas, as defined in Ark. Code Ann. §84-102(10).

Year shall mean a twelve month period regardless of the beginning date. In the event a triggered event shall be due on a year ending date that does not exist (for example, February 29 in some years), then the event shall be due on the first day of the following month (for example, March 1).

Capacity, Management, Operation, and Maintenance (CMOM) Program Summary and Intent

On January 2, 2015, the City of Fort Smith, Arkansas (City) entered into a Consent Decree with the United States Environmental Protection Agency (EPA) and the State of Arkansas to address deficiencies within the City's wastewater collection and transmission system (WCTS). Per Section V, Article Seven of the Consent Decree, the City will prepare an effective WCTS Capacity, Management, Operation, and Maintenance Program ("CMOM Program") consistent with EPA's 2005 Guidance entitled "Guide for Evaluating Capacity, Management Operation and Maintenance Programs at Sanitary Sewer Collection Systems." All components of the CMOM Program, as set forth in Paragraphs 37-56, shall be submitted in report form to EPA for review and approval at a date no later than 24 months from the Date of Lodging, with shorter submission dates for certain components. The Date of Lodging for the Consent Decree has been established as January 2, 2015.

The aggregate CMOM Program is comprised of 13 separate components that were developed to address deficiencies within specific elements of the City of Fort Smith's WCTS. Upon approval by EPA, each of the respective CMOM components is intended to be used by the City of Fort Smith as guidelines for the implementation of a defined set of procedures to satisfy the long-term requirements of EPA and promote compliance with the Clean Water Act (CWA).

Section 1

Consent Decree Requirements for the Comprehensive Training Program Plan

This Comprehensive Training Program (CTP) Plan has been prepared to satisfy the requirements set forth in Article Seven, Paragraph 55 of the Consent Decree and must be submitted to EPA for review no later than eighteen (18) months from the Date of Lodging of the Consent Decree (i.e., by July 1, 2016). Following EPA's approval, the City will implement the Comprehensive Training Program. **Table 1-1** provides a list of the Consent Decree requirements for the Comprehensive Program and the sections of this document that addresses each requirement.

Table 1-1. Summary of Consent Decree Requirements for the Comprehensive Training Program

Consent Decree Paragraph	Consent Decree Requirement	Comprehensive Training Program Plan Section
55	Training shall be directly related to operation and maintenance of the sanitary sewer collection system for the purpose of responding to and preventing SSOs. Technical and skills training shall be devised to achieve the Objectives of the Consent Decree. The CTP shall include at a minimum:	
55.a	A list and description of the categories of employees who will be provided training in specific topics related to SSO prevention and response measures that can be addressed through operation and maintenance of the collection system, with specific training commensurate with the specific job responsibilities of each category of employee.	3.1, 3.2, 3.3
55.b	A list and description of the topics to be covered in technical and skills training for each relevant category of employee, including where appropriate: training on sewer cleaning, FOG inspection, collection system inspection, collection system repair, replacement and rehabilitation techniques, data collection, information management, reporting, and recordkeeping necessary to implement the City's CMOM Program.	3.1, 3.2, 3.3
55.c	A list of City employee training categories and description of the technical and skills training to be covered for each relevant category of employee.	3.1, 3.2, 3.3
55.d	A description of how the training relates to any applicable employee certification required by State or Federal law.	3.2
55.e	A description of the record keeping system of employee technical training, skills training, and safety training (whether on-the job, or otherwise).	4.1

Section 2

Purpose and Goals of the Comprehensive Training Program

The Comprehensive Training Program is a component of the City's CMOM Program and is intended to provide a program by which Utility Department (Utility) personnel receive proper training in the procedures related to operating and maintaining the sanitary sewer collection system. Once implemented, the training program shall promote the safe, efficient, and successful technical skills associated with operating and maintaining the City's WCTS to satisfy EPA Consent Decree objectives.

In meeting the EPA requirements, the objectives of the Comprehensive Training Program Plan as related to operations and maintenance of the WCTS shall be as follows:

- Identify the technical and skills training that employees will need to effectively and safely perform their duties:
- Target training to specific categories of labor and/or personnel based on job descriptions;
- Provide subject specific curriculum and associated training materials for each required CMOM program component, or a means to achieve this from an outside source;
- Identify and develop internal and external resources for training employees, whereby, appropriate personnel acquire and maintain certifications and licenses required for their positions; and
- Implementation of a system for maintaining employee training records.

Section 3

Elements of the Comprehensive Training Program

As further detailed below, the Comprehensive Training Program shall be established on three fundamental elements:

- Technical training;
- Skills training; and
- Safety training.

The technical training component shall include, at a minimum, the following:

- Employee technical training and refresher technical training requirements (curriculum) that require each employee has a level of knowledge, commensurate with duties, of the overall functions of the City's infrastructure;
- A list and description of technical training and networking opportunities, such as conferences and seminars, that are available to employees;
- List and description of voluntary certification opportunities, at both the State and the City level, to be encouraged by the Utility as a component of training programs for specific positions;
- Records of technical training, including "on the job" training, to be maintained as part of the Information Management System (IMS), through which an employee's technical training can be catalogued for use during annual appraisals; and
- A list and description of the technical training required for specific work assignments or tasks.

The skills training component shall contain, at a minimum, the following:

- Employee skills training and refresher skills training requirements (curriculum) that require each employee has a level of knowledge, commensurate with duties, of the specific equipment to be used and the procedures to be followed in carrying out duties;
- A list and description of skills training opportunities, such as third-party training, that are available to employees;
- Records of skills training, including "on the job" training, to be maintained as part of the IMS, through which an employee's skills training can be catalogued for use during annual appraisals; and
- A list and description of the skills and on-the-job training for specific work assignments or tasks.

Training related to safety is incorporated as part of the technical and skills training components.

3.1 Utility Department Organizational Structure

The City of Fort Smith's Utility Department is divided into various programs, with one being the Communications and Training Program. Under this program, there are dedicated safety and training staff in the Utility Department.

Specific responsibilities of these staff include, but are not limited, to the following:

- Implementing the Comprehensive Training Program;
- Providing required training as part of orientation for new employees of the Utility Department;
- Coordinating with managers and supervisors to establish training standards for staff;
- Developing and acquiring training materials;
- Developing contracts with outside training providers;
- Scheduling training sessions for Utility personnel;
- Maintaining a training calendar and communicating with managers and supervisors on training;
- Coordinating activities related to training database with appropriate IMS personnel;
- Maintaining copies of individual training records; and
- Conducting an annual review of the training program, including guidance documents and training materials, and making recommendations for improvement to the Utility Department administration.

The Utility Department has eight training categories of employees related to SSO prevention in the collection system. The categories and training required for each are discussed in **Section 3.2.1**.

3.2 Technical Training Program

The technical training program shall address the requirements, materials, and conditions for proper operation and maintenance of the WCTS.

To satisfy the requirements of the Consent Decree, a formal Technical Training Program shall be implemented as part of the Comprehensive Training Program. The Technical Training Program will provide training to employees, both through formal courses as well as “on the job” training, on performing their duties safely, effectively, and efficiently. This training may be taught by Utility personnel, while others may be provided by outside organizations or vendors. An employee must receive training before performing certain specified tasks such as closed circuit television (CCTV) inspection of a gravity sewer line or performing a FOG inspection. Records will be maintained

(within the IMS) to document required training for specific personnel, in addition to completed training, as discussed in Section 4.

Training and course work may include the following three phases (as applicable):

- Initial training (orientation);
- Refresher training; and
- Certification (and recertification), when required.

3.2.1 Technical Training Master Sheet

Technical training curriculums for employees of the Utility Department will be developed in order to satisfy the Consent Decree requirements for specific CMOM program components. Courses include, but are not necessarily limited to, the following:

- WCTS Configuration, Facilities, and Overview;
- Consent Decree Program Overview including CMOM Implications and Requirements;
- Sewer Overflow Response;
- Sewer Cleaning;
- Fats, Oils, and Grease (FOG) Inspection;
- WCTS Inspections;
- Pump Station Inspection;
- WCTS Repair, Replacement, and Rehabilitation Techniques;
- Pump Station Operations & Maintenance/Repair;
- Excavation Safety;
- Work Zone Safety (including Traffic Control);
- Information Management, Data Collection, Reporting and Recordkeeping;
- Safety – Confined Space Entry;
- Safety – Lockout/Tagout; and
- Safety – General Orientation.

A Technical Training Master Sheet, which will include categories of employees within the Utility Department and organized by work groups, will be utilized to outline the different training

courses, including technical, skills, and safety as they apply to each specific position. The eight (8) categories of employees are:

- Sewer Cleaning;
- SSO Response;
- Sewer Pump Station;
- FOG Inspection;
- WCTS Inspection;
- Sewer System Repair and Construction;
- Private Service Line; and
- Information Management System

The Technical Training Master Sheet is provided as **Table 3-1**. Each employee position will fall into one or more of the eight (8) employee categories, based on the responsibilities associated with that position. As such, the corresponding employee technical training, skills training, and safety training (whether on-the-job or otherwise) will be saved in the City's document management system and maintained, as required, under the records retention policy as described in **Section 4.1, Record Keeping**.

Table 3-1. Technical Training Master Sheet

Comprehensive Training Program Plan Employee Category	Technical and Skill Training Topics														
	WCTS Configuration, Facilities, Overview	Consent Decree Program Overview Including CMOM Implications & Requirements	Sewer Overflow Response	Sewer Cleaning	FOG Inspection	WCTS Inspection	WCTS Repair, Replacement and Rehabilitation Techniques	Pump Station Inspection	Pump Station O&M/Repair	Excavation Safety	Work Zone Safety (including Traffic Control)	Information Management, Data Collection, Reporting & Recordkeeping	Safety, Confined Space Entry	Safety, Lockout/Tagout	Safety, General Orientation
Sewer Cleaning Includes the Combination Jet/Vacuum Truck and Rod Truck personnel that support WCTS inspections.	✓	✓	✓	✓						✓	✓	✓	✓		✓
SSO Response Includes personnel that respond to sanitary sewer overflows.	✓	✓	✓	✓	✓					✓	✓	✓	✓		✓
Sewer Pump Station Includes personnel responsible for the operation and maintenance of the sewer pump stations.	✓	✓	✓					✓	✓	✓		✓	✓	✓	✓
FOG Inspection Includes personnel responsible for inspection of FOG control devices, permitting and enforcement.	✓	✓			✓					✓	✓	✓			✓
WCTS Inspection Includes personnel responsible for CCTV, dye and smoke testing, manhole, pipeline, and lateral inspections, and assignment of condition ratings	✓	✓		✓		✓				✓	✓	✓	✓		✓
Sewer System Repair and Construction Includes personnel responsible for repairs, construction, and air relief valve maintenance.	✓	✓	✓				✓			✓	✓	✓	✓		✓
Private Service Line Includes personnel that manage private service line issues.	✓	✓	✓							✓		✓			✓
Information Management System Includes information management personnel, work order management personnel, and GIS personnel.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

3.2.2 Outside Training Opportunities

Part of the implementation of this plan may include identification of outside resources for the course curriculum. Some outside resources provide the materials for use by the Utility staff, while others provide the actual training. These resources include professional organizations, educational institutions, and government agencies. Training material to be used may include videos, interactive online courses, correspondence courses, textbooks, and brochures. The following includes where this training material is available:

- Water Environment Federation (WEF), including the Arkansas Water Environment Association (AWEA);
- U.S. Environmental Protection Agency (EPA);
- Arkansas Department of Environmental Quality (ADEQ);
- Training from other organizations specializing in technical education. Specific examples include:
 - University of Arkansas Department of Industrial Technology;
 - Arkansas Environmental Training Academy;
 - Arkansas Rural Water Association;
 - California State University, Sacramento, Office of Water Programs;
 - Arkansas Department of Labor; and
 - Arkansas Highway and Transportation Department's Technology Transfer Program.
- Training from other vendors with expertise in specific topics. Training topics may include the following:
 - Materials of Construction and Design Considerations for Sewer Pipe;
 - Sewer Trench Backfill Materials and Compaction Requirements;
 - Trenching and Shoring;
 - Collection System Operation and Maintenance;
 - Biological Activity and Pathogens in Wastewater;
 - Hazardous Materials Safety;
 - Confined Space Entry; and
 - Electrical Safety.

Training opportunities also exist from the private sector such as equipment vendors, labs, and consultants on an ad hoc basis. Frequent use of these resources should be encouraged and woven into the educational approach for the Department.

3.3 Skills Training Program

Skills training addresses the methods, procedures, and techniques required for proper operation and maintenance of the collection system.

Currently, skills training is developed “on the job” to improve the skills of the employees within the Utility Department. As part of the Comprehensive Training Program, the Utility shall evaluate the requirements for each employee category and allocate the corresponding required training.

Before an employee assumes responsibility of a task requiring a high degree of technical skill to properly perform (or ones that are specialized in nature), he or she shall be assigned to complete the appropriate training. It is anticipated that the majority of skills training is conducted on the job by supervisors or seasoned employees. Several different opportunities also exist for an employee to participate in specialized course training, such as equipment vendors or outside organizations comprising the wastewater industry. Tracking completed O&M activity training will be catalogued and maintained as part of the IMS.

The industry recognized core competencies are clustered into the following job duties:

- Operation of Equipment;
- Evaluation and Maintenance of Equipment;
- Maintenance and Restoration of Collection System;
- Maintenance of Lift Stations;
- Monitoring, Evaluation, and Adjustment of WCTS; and
- Performance of Security, Safety, and Administrative Procedures.

In conjunction with the formal and classroom-based training, one of the most essential means of successful staff development is administered through “on-the-job”/mentorship training. Employee supervisors/seasoned employees experienced in a particular area of operation may be utilized for training less experienced personnel while in the field. The trainee participating in this type of hands-on training may be periodically assessed/evaluated by the supervisor until the trainee can demonstrate their proficiency in that particular area of WCTS operations. Examples of this type of “in-house” skills training may include the following:

- Cleaning out main lines;
- Smoke testing;
- Installing services; and
- Repairing main lines.

Training relevant to performance of collections systems operations and maintenance, safety, and relevant SOPs may include training on the following equipment:

- Rod Trucks;
- Combination Jet/Vacuum Trucks;
- CCTV Trucks; and
- Pump Station Equipment (pumps, valves, motors, controls, alarms, screens, etc.)

As part of the skills training program, Utility personnel may utilize skills training opportunities provided by the same professional organizations, educational institutions, government agencies, and equipment vendors as listed in **Section 3.2.2**.

Safety training is a necessary component of skills training, and serves to reduce injuries, minimize and avoid property damage, legal liability, illnesses, workers' compensation claims, and missed time from work. Safety training courses helps employees to perform their duties safely and effectively.

Examples of safety topics include:

- Confined Space Entry;
- Lockout/Tagout;
- Personal Protective Equipment; and
- Personal Sanitation.

Other training relevant to safety includes, but is not limited to:

- General safety training - Backhoe/loader use, basic electrical safety, fall protection, traffic control, flagger safety, trenching safety, ladder safety;
- First aid and CPR;
- Blood-borne Pathogens Control - Established to adopt universal precautions in order to prevent contact with blood or other potentially infectious materials; and
- Hazard Communication – Chemical Right to Know Act was established to insure that the hazards of all chemicals utilized for collection system maintenance are evaluated and that pertinent information is transmitted to potentially exposed employees.

Section 4

Record Keeping and Reporting

4.1 Record Keeping

As required by the Consent Decree, records associated with the Comprehensive Training Program for employee technical training, skills training, and safety training (whether on-the-job or otherwise) will be saved in the City's document management system and maintained as required under the records retention policy.

The City is currently updating its strategy for managing its field and office information. The City's plan for modifying its Information Management System (IMS), as described in Article Seven, Paragraph 50 of the Consent Decree, will be submitted to EPA for approval within twenty-four (24) months of the Date of Lodging (i.e., by December 31, 2016).

4.2 Reporting

Per Article X, Paragraph 94.l of the Consent Decree, the City must provide a tabulation of the employee training activities, required under Article Seven, Paragraph 55, conducted in the Annual Report Year including, but not limited to:

- Category of Utility Department employees directly or indirectly involved in the operation and maintenance of the WCTS;
- Specific training received by each category of Utility Department employee in prior Calendar Years and received in the Annual Report Year.

4.3 Periodic Review, Evaluation, and Revision

As part of the Utility's annual reporting process, this Plan shall be reviewed and evaluated by Utility personnel in order to determine whether the objectives set forth by the Consent Decree are being met or improvements to the plan are needed. If an element of this Plan is identified as being ineffectual or impracticable, then the Utility will propose the necessary amendments, or submit a revised plan, as part of the Annual Report.