

Gap Analysis Tool

Collection System Maintenance Grade 1

In the rows below, select "Do It All The Time", "Limited Experience" or "Never Do This" based on your current knowledge and experience. Based on your responses, you can assess your overall preparedness for each Domain.

	Do It All The Time	Limited Experience	Never Do This
Domain 1 – Collection System Operations and Maintenance			
Sub-Domain 1.1 – Maintenance of Gravity Systems			
1. Know the basics of mechanical cleaning (e.g., rodding machine, root saw, chain flail, balling, bucket machine) used for gravity systems maintenance			
2. Know the basics of hydraulic cleaning used for gravity systems maintenance			
3. Know the principles of root control			
4. Maintain manholes, catch basins, laterals and gravity sewers			
5. Know basic condition assessment techniques (e.g., CCTV, push cam, pole cam, visual observation)			
Sub-Domain 1.2 – Repair of Gravity Systems			
1. Locate damaged sections of sewer lines and sewer lateral lines			
2. Identify the severity of system damage			
3. Assist in determining materials required to make repairs			
4. Know basics of excavation and site preparation			
5. Know the importance of trenching and shoring techniques			
6. Perform basic pipe repair (i.e., cut various pipe materials to length, install, couplings, torque couplings)			
Sub-Domain 1.3 – Operation, Maintenance, and Repair of Pumps and Force Mains			
1. Know of methods used to remove (e.g., rigging, hand signals) and repair pumps			
2. Operate pumps to remove sewage from damaged or clogged lines, in response to spills, or when bypass pumping is required			
3. Know methods used to clean pumps, lift/pump stations, and wet wells			
4. Know basic pump types, piping, and components			
Sub-Domain 1.4 – Spills and Emergency Response			
1. Possess general knowledge of your agency's emergency response plan			
2. Know containment methods			
3. Know clean-up methods and procedures			
4. Follow appropriate procedures as the first responder to the spills			
5. Identify categories of spills			

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6. Possess general knowledge of Statewide General Waste Discharge Requirements (WDR) for sanitary sewer systems			
7. Possess general knowledge of Sewer System Management Plan (SSMP) requirements per the WDR			
How would you rank Domain 1 based on what you selected for each Sub-Domain?			
Domain 2 – Collection System Tools and Equipment			
Sub-Domain 2.1 – Equipment for Inspection			
1. Understand how CCTV equipment is used to inspect and assess conditions of collection system			
2. Know common locating equipment			
3. Know equipment used for physical testing methods (e.g., smoke testing, dye testing)			
Sub-Domain 2.2 – Tools and Equipment for Maintenance and Repair			
1. Operate and maintain vehicles and heavy equipment			
2. Operate and maintain shoring equipment			
3. Operate and maintain hand and power tools			
4. Report the need for vehicle and equipment repairs			
5. Operate tools that are utilized for clearing vegetation			
6. Understand the hazards and use of pneumatic plugs			
How would you rank Domain 2 based on what you selected for each Sub-Domain?			
Domain 3 – Collection System Mapping			
Sub-Domain 3.1 – Sewer System / Collection System Maps Workers and the Public			
1. Read and interpret system maps, digital / GIS and printed, for collection and drainage systems			
2. Identify discrepancies in system / collection maps			
How would you rank Domain 3 based on what you selected for each Sub-Domain?			
Domain 4 – Safety and Regulations			
Sub-Domain 4.1 – Safety Policies and Procedures			
1. Perform all work in accordance with established safety policies and procedures			
2. Participate in activities with employees and the public to adhere to safety policies and procedures			
3. Recognize and report safety violations			
4. Know industry-relevant Cal-OSHA safety rules and procedures			
5. Identify common hazards on the job site (e.g., easement hazards, hazards on private property, etc.)			
6. Know lockout / tagout procedures			

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Sub-Domain 4.2 – Confined Space Entry			
1. Identify the characteristics of a confined space, including permit required confined space			
2. Perform all work in accordance with Cal-OSHA regulations relating to confined space entry, including use of appropriate PPE			
3. Recognize correct procedure to safely enter and perform required duties in confined spaces, (e.g., removing manhole cover, retrieval procedures, etc.)			
4. Assist with confined space entries as an entrant and attendant			
5. Use equipment to determine concentration of hazardous gases and oxygen deficiencies in confined spaces			
Sub-Domain 4.3 – Underground Service Alert (USA 811)			
1. Understand basics of Underground Service Alert (e.g., colors, etc.)			
2. Understand the basics of underground utility conflicts			
3. Mark and notify Underground Service Alert for location of all utilities within work area			
Sub-Domain 4.4 – Traffic Control Practices and Requirements			
1. Know applicable laws and regulations regarding traffic control (i.e., MUTCD)			
2. Set up traffic control and barricade equipment			
3. Understand the appropriate PPE related to traffic control			
4. Effectively use advance warning signs, stop/slow paddles, flags, and temporary traffic control zones			
Sub-Domain 4.5 – Trenching and Shoring			
1. Know trenching methods (e.g., benching and sloping) based on worksite conditions			
2. Know regulations related to trenching and shoring			
3. Identify trench protection devices (e.g., whalers, timber shoring, etc.)			
Sub-Domain 4.6 – Hazardous Materials / First Aid			
1. Know safety equipment, PPE, and practices related to the handling of hazardous chemicals			
2. Identify hazardous materials and proper disposal methods using Safety Data Sheet (SDS)			
3. Know about bloodborne pathogens			
4. Know precautions to protect against heat-related illness			
How would you rank Domain 4 based on what you selected for each Sub-Domain?			
Domain 5 – Administration of Collection Systems			
Sub-Domain 5.1 – Records, Reports, and Documentation			
1. Maintain accurate and complete records and documentation of work performed			
2. Note and report on condition of infrastructure (sewer mains, laterals, and manholes)			

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Sub-Domain 5.2 – Customer Service and Communication			
1. Communicate with members of the public and respond to service calls and questions professionally			
2. Assist with responses to customer inquiries and complaints regarding sewer spills and stoppages, sewer odors, and repair work			
3. Provide the general public with sewer line location, information, and notification of sewer maintenance			
4. Work courteously and effectively with the public and with coworkers			
How would you rank Domain 5 based on what you selected for each Sub-Domain?			
Domain 6 – Math for Collections Systems			
Sub-Domain 6.1 Basic Math Used in Collection System Maintenance			
1. Perform basic unit conversions			
2. Measure distance			
3. Calculate area			
4. Calculate volume			
5. Calculate flow rate			
6. Calculate elevation			
7. Complete basic spill-related calculations			
How would you rank Domain 6 based on what you selected for each Sub-Domain?			

You may want to focus your studying in the areas where you selected "Limited Experience" or "Never Do This". See Collection System Maintenance Candidate Handbook.

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Collection System Maintenance Grade 2

In the rows below, select "Do It All The Time", "Limited Experience" or "Never Do This" based on your current knowledge and experience. Based on your responses, you can assess your overall preparedness for each Domain.

	Do It All The Time	Limited Experience	Never Do This
Domain 1 – Collection System Operations and Maintenance			
Sub-Domain 1.1 – Maintenance of Gravity Systems			
1. Know the methods of mechanical cleaning (e.g., rodding machine, root saw, chain flail) used for gravity systems maintenance			
2. Know the methods of hydraulic cleaning used for gravity systems maintenance			
3. Know the principles of root foaming activities			
4. Maintain manholes, catch basins, laterals and gravity sewers			
5. Know basic methods of odor and vector control in sewer mains, manholes, and lift/pump stations			
Sub-Domain 1.2 – Repair of gravity systems			
1. Locate damaged sections of sewer lines and sewer lateral lines			
2. Assess severity of system damage			
3. Determine materials required to make repairs			
4. Apply techniques of excavation and site preparation			
5. Apply trenching and shoring techniques			
6. Perform pipe repair (i.e., cut various pipe materials to length, install couplings, torque couplings)			
7. Basic knowledge of pipe materials, fittings, and pipefitting tools and methods, including pipe bursting and pipe patching / Cure In-Place Piping (CIPP)			
Sub-Domain 1.3 – Operation, Maintenance, and Repair of Pumps and Force Mains			
1. Recognize existence of agency SCADA systems and basic information available			
2. Know the methods used to repair pumps			
3. Clean pumps, lift/pump stations, and wet wells			
4. Know basic pump types, piping, and components			
5. Understand information provided by pump curves			
Sub-Domain 1.4 – Spills and Emergency Response			
1. Know basic containment methods and how they are performed			
2. Perform post-spill clean-up			

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3. Follow appropriate procedures as the first responder to a spill			
4. Know categories of spills			
5. Know local and state regulatory notification spill volumes and timeframes			
6. Know how to set up and operate an emergency bypass			
How would you rank Domain 1 based on what you selected for each Sub-Domain?			
Domain 2 – Collection Systems Tools and Equipment			
Sub-Domain 2.1 – Equipment for inspection			
1. Operate CCTV equipment to inspect and assess conditions of collection system			
2. Maintain CCTV equipment			
3. Perform minor repairs for CCTV equipment			
4. Use camera mounted sonde and other locating equipment			
5. Record condition data based on CCTV results			
6. Operate equipment used for physical testing methods (e.g., smoke testing and dye testing)			
Sub-Domain 2.2 – Tools and Equipment for Maintenance and Repair			
1. Operate and maintain vehicles and heavy equipment			
2. Operate and maintain trench protection equipment			
3. Operate and maintain hand tools and power tools			
4. Identify and communicate the need for vehicle and equipment repairs			
7. Understand the hazards and use of pneumatic plugs			
How would you rank Domain 2 based on what you selected for each Sub-Domain?			
Domain 3 – Plans, Maps, and As-Builts			
Sub-Domain 3.1 – Sewer system / Collection System Maps			
1. Read and interpret system maps, digital / GIS and printed, for collection and drainage systems			
2. Communicate corrections to system / collection maps as needed			
Sub-Domain 3.2 – Construction plans, Drawings, and Specifications			
1. Interpret construction plans, drawings, and specifications related to collection system projects including underground infrastructure, and related equipment			
2. Provide input on schematics, facility record drawings, and known deficiencies in advance of project design			
How would you rank Domain 3 based on what you selected for each Sub-Domain?			

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Domain 4 – Safety and Regulations			
Sub-Domain 4.1 – Safety policies and procedures / Cal-OSHA			
1. Perform all work in accordance with established safety policies and procedures			
2. Coordinate activities with employees and the public to adhere to safety policies and procedures			
3. Enforce safety regulations			
4. Knowledge of Cal-OSHA safety rules and procedures			
5. Identify and correct hazards on the job site (e.g., easement hazards, hazards on private property, etc.)			
6. Execute lockout / tagout procedures			
Sub-Domain 4.2 – Confined Space Entry			
1. Identify the characteristics of a confined space, including permit required confined space			
2. Perform all work in accordance with Cal-OSHA regulations relating to confined space entry, including use of appropriate PPE			
3. Recognize correct procedure to safely enter and perform required duties in confined spaces, (e.g., removing manhole cover, retrieval procedures, etc.)			
4. Know the responsibilities of the entrant, attendant, and supervisor and demonstrate competence in each role			
5. Use equipment to determine concentration of hazardous gases and oxygen deficiencies in confined spaces			
6. Understand and comply with the requirements of a Cal-OSHA compliant respiratory protection program			
7. Complete confined space entry permit			
Sub-Domain 4.3 – Underground Service Alert (USA 811)			
1. Understand Underground Service Alert roles and responsibilities for locations of all utilities within work area			
2. Make site ready for work, based on required permits and safe-dig procedures			
Sub-Domain 4.4 – Traffic Control Practices and Requirements			
1. Know and apply applicable laws and regulations regarding traffic control (i.e., MUTCD)			
2. Use proper traffic control techniques and devices when working in traffic areas			
3. Effectively use advance warning signs, stop/slow paddles, flags, and temporary traffic control zones			
4. Select and use the appropriate PPE related to traffic control			
Sub-Domain 4.5 – Trenching and Shoring			
1. Assess site conditions and apply appropriate trenching methods			
2. Ensure compliance with regulations related to trenching and shoring			

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Sub-Domain 4.6 – Hazardous Materials / First Aid			
1. Know safety equipment, PPE, and practices related to the handling of hazardous chemicals			
2. Identify hazardous materials and proper disposal methods using Safety Data Sheet (SDS)			
3. Know about bloodborne pathogens			
4. Know precautions to protect against heat-related illness			
Sub-Domain 4.7 – Environmental Protection Regulations			
1. Understand Statewide General Waste Discharge Requirements (WDR) for sanitary sewer systems			
2. Understand the components and the implementation of Sewer System Management Plan (SSMP)			
3. Understand regulations which govern illegal connections and illicit discharges			
How would you rank Domain 3 based on what you selected for each Sub-Domain?			
Domain 5 – Administration of Collection Systems			
Sub-Domain 5.1 – Records, Reports, and Documentation			
1. Maintain accurate and complete records and documentation of work performed			
2. Evaluate and report on condition of infrastructure (sewer mains, laterals, and manholes)			
3. Maintain records of permit, easement, as-built, and blueprints accurately			
Sub-Domain 5.2 – Customer Service and Communication			
1. Interpret agency requirements and communicate them to members of the public			
2. Respond to service calls and questions tactfully and professionally			
3. Receive, record, respond to, and resolve customer inquiries and complaints regarding sewer spills, sewer odors, and repair work			
4. Interact with the general public regarding collection system information and notifications of maintenance activity			
Sub-Domain 5.3 – Training			
1. Provide training on the proper and safe operation and use of all collection system machinery and equipment			
2. Assist with onboarding, training, and providing input on job performance			
Sub-Domain 5.4 – Planning and supervision			
1. Participate in the planning and scheduling of crews			
2. Verify that all information on work orders is accurate			
3. Determine the type of materials, supplies, machinery, or tools to be used for each project, and prepare materials for use			
How would you rank Domain 5 based on what you selected for each Sub-Domain?			

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Domain 6 – Math for Collection Systems			
Sub-Domain 6.1 - Math Used in Collection System Maintenance			
1. Calculate gross vehicle weight rating (GVWR)			
2. Calculate area			
3. Calculate volume			
4. Calculate velocity			
5. Calculate flow rate			
6. Calculate elevation			
7. Calculate slope			
8. Complete spill-related calculations			
How would you rank Domain 6 based on what you selected for each Sub-Domain?			

You may want to focus your studying in the areas where you selected "Limited Experience" or "Never Do This". See Collection System Maintenance Candidate Handbook.

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Collection System Maintenance Grade 3

In the rows below, select "Do It All The Time", "Limited Experience" or "Never Do This" based on your current knowledge and experience. Based on your responses, you can assess your overall preparedness for each Domain.

	Do It All The Time	Limited Experience	Never Do This
Domain 1 – Collection System Operations and Maintenance			
Sub-Domain 1.1 – Equipment for Inspection			
1. Supervise the inspection, maintenance, and repair of sewer lines, storm drain system, lift/pump stations, manholes, and laterals			
2. Evaluate, coordinate, and monitor preventive maintenance, root control, and pipe lockage prevention programs (FOG), and make adjustments as necessary			
3. Apply advanced knowledge of trenching and shoring methods and techniques			
4. Utilize computerized systems to make informed decisions about operation and maintenance (e.g., SCADA, CMMS, GIS, and historical documents)			
5. Make assessments related to and supervise the repair or replacement of mains, manholes, and other collection system components			
6. Implement methods of odor and vector control in sewer mains and manholes			
7. Understand the laws and regulations concerning Underground Service Alert (USA)			
8. Apply techniques of excavation and site preparation			
9. Perform pipe repair (i.e., cut various pipe materials to length, install couplings, torque couplings)			
Sub-Domain 1.2 – Spills and Emergency			
1. Submit sanitary sewer spill reports on the California Integrated Water Quality Systems (CIWQS)			
2. Report and assist with reporting spills in a timely manner as prescribed by applicable regulations to the proper regulating agency (e.g., Cal-OES)			
3. Oversee containment and clean-up of sewer spills			
4. Ensure appropriate response to emergency sewer calls			
5. Direct emergency response activities including repairs, spills response, storm response, incident command and/or coordination, and EOC support			
6. Verify data associated with direct spill response activities			
7. Supervise bypass pumping and the implementation of contingency plans			
How would you rank Domain 1 based on what you selected for each Sub-Domain?			
Domain 2 – Collection Systems Tools and Equipment			
Sub-Domain 2.1 – Equipment for Inspection			
1. Utilize CCTV to resolve rehabilitation, operations and maintenance, and customer service issues			

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2. Plan, oversee, and direct CCTV program			
3. Understand and apply condition assessment standards			
4. Evaluate the maintenance needs of CCTV equipment and make recommendations for modifications and/or upgrades			
Sub-Domain 2.2 – Tools and Equipment for Maintenance and Repair			
1. Advise staff, consultants, engineers, and contractors in acquisition and installation of new equipment			
2. Supervise safe vehicle operation, routine maintenance, and repair programs			
3. Supervise safe operation and maintenance of trench protection equipment			
4. Supervise the safe operation and maintenance of hand and power tools			
5. Supervise safe operation and maintenance of equipment used for specialized sewer equipment (e.g., nozzles, smoke tests, etc.)			
6. Understand the hazards and use of pneumatic plugs			
How would you rank Domain 2 based on what you selected for each Sub-Domain?			
Domain 3 – Plans, Maps, and As-Built			
Sub-Domain 3.1 – Sewer system / Collection System Maps			
1. Oversee the use and recommend updates (red lining) to GIS systems			
2. Utilize mapping to plan and route work			
3. Evaluate collection system data to make informed decisions			
Sub-Domain 3.2 – Construction Plans, Drawings, and Specifications			
1. Understand, evaluate, and recommend modifications to construction plans, maps, layouts, piping sketches, drawings, and specifications related to collection system projects, including underground infrastructure and related equipment			
2. Provide input to prepare capital improvement projects			
How would you rank Domain 3 based on what you selected for each Sub-Domain?			
Domain 4 – Safety and Regulations			
Sub-Domain 4.1 – Safety policies and procedures			
1. Ensure that the Injury, Illness, and Prevention Plan (IIPP) and other safety program requirements (e.g., Cal-OSHA, heat-related illness prevention) are implemented and carried out			
2. Identify, investigate, resolve, and document safety incidents, accidents, injuries, and near misses			
3. Ensure that the lockout / tagout procedures are followed			
4. Understand the hazards associated with collection systems operation, maintenance, and repair			
5. Assist in the development of the collection system safety policies and procedures			
Sub-Domain 4.2 – Confined Space Entry			

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1. Ensure all work is performed in accordance with Cal-OSHA regulations relating to confined space entry and working around hazardous atmospheres			
2. Ensure that all necessary equipment for confined space entry including PPE is available and in good condition			
3. Assess equipment needs and make recommendations for replacement and repair			
4. Ensure gas monitoring equipment is calibrated and in good working order			
5. Oversee the effectiveness of confined space entry team			
Sub-Domain 4.3 – Traffic Control Practices and Requirements			
1. Understand California Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) requirements			
2. Oversee and evaluate the setup of traffic control devices and direct necessary improvements			
3. Ensure the use and replacement of all pertinent personal protective equipment (PPE)			
Sub-Domain 4.4 – Safety Regulations			
1. Ensure understanding of hazards and PPE per safety data sheets (SDS) and Right-to-Know laws (i.e., Hazard Communication Standard)			
2. Knowledge of pertinent federal, state, and local laws, codes, and regulations			
3. Ensure compliance with all applicable safety regulations and procedures			
Sub-Domain 4.5 – Environmental Protection Regulations			
1. Understand State General Waste Discharge Requirements (WDR) for sanitary sewer systems			
2. Apply comprehensive knowledge of Sewer System Management Plan (SSMP) requirements per the WDR			
3. Apply comprehensive knowledge of regulations which govern illegal connections and illicit discharges			
4. Provide input into the development, audits, and updates of the SSMP			
How would you rank Domain 4 based on what you selected for each Sub-Domain?			
Domain 5 – Administration of Collection Systems			
Sub-Domain 5.1 – Records, Reports, and Documentation			
1. Prepare and maintain records, forms, and reports for management and regulatory agencies			
2. Assist in the preparation of analytical and statistical reports on operations and activities			
3. Report on the condition of assets			
4. Research and analyze historical maintenance and property records			
Sub-Domain 5.2 – Customer Service and Communication			
1. Investigate and resolve complaints and claims related to collection system maintenance and repair			
2. Coordinate operations with the needs of the public and outside agencies			

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4. Ensure property owners are notified of service interruptions and are provided with information regarding the work being performed			
5. Communicate effectively with state and local agencies regarding problems with the collection system			
6. Evaluate the effectiveness of the customer service program and make adjustments as necessary			
Sub-Domain 5.3 – Training and supervision			
1. Supervise, train, evaluate, and direct personnel			
2. Assist in onboarding new personnel			
3. Plan, prioritize, assign, and review work of staff responsible for the operation and maintenance of the collection system			
4. Provide leadership and technical support, particularly for complex issues			
5. Assess safety needs and support the development of training programs			
6. Participate in the investigations of violations of employer policies or agency ordinances			
7. Coach and mentor employees through constructive and tactful feedback			
Sub-Domain 5.4 – Policies and procedures			
1. Ensure compliance with agency policies and procedures and regulatory requirements			
2. Participate in the development of policies and procedures and recommend changes to existing standards and procedures			
Sub-Domain 5.5 – Planning, Budgeting, and Data Analysis			
1. Plan, organize, track, and document collection system maintenance and repair activities			
2. Assist in the development Key Performance Indicators (KPIs) and ensure KPIs are tracked and met			
3. Identify and implement process improvements			
4. Utilize the Computerized Maintenance Management System (CMMS) to track, update, and assign work activities			
5. Assist with the preparation of the annual budget and work plan			
6. Assess program and project resource needs, funding, staffing, equipment, and materials and offer recommendations			
How would you rank Domain 5 based on what you selected for each Sub-Domain?			
Domain 6 – Math for Collection Systems			
Sub-Domain 6.1 – Basic math used in collection systems maintenance.			
1. Calculate gross vehicle weight rating (GVWR)			
2. Calculate area			
3. Calculate volume			
4. Calculate velocity			
5. Calculate flow rate			

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6. Calculate elevation			
7. Calculate slope			
8. Complete complex spill-related calculations			
How would you rank Domain 6 based on what you selected for each Sub-Domain?			

You may want to focus your studying in the areas where you selected "Limited Experience" or "Never Do This". See Collection System Maintenance Candidate Handbook.

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Collection System Maintenance Grade 4

In the rows below, select "Do It All The Time", "Limited Experience" or "Never Do This" based on your current knowledge and experience. Based on your responses, you can assess your overall preparedness for each Domain.

	Do It All The Time	Limited Experience	Never Do This
Domain 1 – Collection System Operations and Maintenance			
Sub-Domain 1.1 – Preventive / Routine Maintenance, Cleaning, and Repair of Sewer System			
1. Plan, direct, coordinate, prioritize, and review the work plan for the collection system			
2. Oversee all aspects of the collection system maintenance program and understand how to use performance indicators to evaluate program effectiveness			
3. Knowledge of practices and procedures related to the installation and repair of sewer mains, laterals, clean-outs, and manholes, including trenching and shoring practices			
4. Identify service areas and locations of sewer facilities and equipment			
5. Understand the principles of sewer system hydraulic modeling, and capacity assessment and assurance			
6. Analyze complex collection system maintenance problems, evaluate alternatives, and direct the courses of action			
Sub-Domain 1.2 – Condition Assessment			
1. Oversee development and implementation of collection system assessment program			
2. Know practices and procedures related to condition assessment of sewer collection system			
3. Ensure inspection records are maintained			
4. Utilize condition assessment results to prioritize pipeline repairs and to inform the development of capital improvement needs			
Sub-Domain 1.3 – Equipment			
1. Know the tools, materials, and equipment needed to operate and maintain collection systems			
2. Evaluate the methods used to diagnose, disassemble, and repair collection system equipment			
3. Develop, implement, oversee, approve, and make recommendations for collection system equipment selection, maintenance, and replacement programs			
4. Research and recommend purchase of equipment, parts, suppliers, and costs			
Sub-Domain 1.4 – Spills and Emergency Response			
1. Evaluate the effectiveness of spill response procedures and practices			
2. Certify CIWQS spill reports, including verifying volume estimates			
3. Prepare and certify collection system annual report in CIWQS			
4. Develop, evaluate, maintain, and update as required the Spill Emergency Response Plan (SERP)			
5. Develop and implement contingency plans for emergency bypass			

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How would you rank Domain 1 based on what you selected for each Sub-Domain?			
Domain 2 – Collection System Management			
Sub-Domain 2.1 – Budgeting			
1. Oversee, develop, and administer the collection system annual budget			
2. Monitor, approve, and analyze expenditures and implement adjustments			
3. Prepare and approve purchase requisitions of needed materials and supplies			
4. Write specifications and bid solicitations for equipment purchases			
5. Track and forecast resources needed for staffing, equipment, materials, and supplies			
6. Develop scopes of work to request quotes and proposals			
7. Calculate costs related to system maintenance activities			
Sub-Domain 2.2 – Management and Planning			
1. Evaluate personnel, equipment, and material needs			
2. Coordinate with publicly owned treatment works (POTWs) for major repairs, equipment installation, special maintenance activities, and any anticipated flow changes or conditon			
3. Know development review and plan checking processes			
4. Administer the work of contractors, consultants, and engineers			
5. Direct and participate in the development and implementation of collection system goals, objectives, policies, and procedures			
6. Oversee the use of GIS mapping systems in collection system maintenance operation and maintenance			
7. Manage Computerized Maintenance Management System (CMMS) and its use in scheduling, preventative maintenance, repair activities, and purchasing			
8. Prepare records, reports, and other written materials			
9. Review and respond to liability claims and participate in the investigation of violations of employer policies or agency ordinances			
10. Serve as collection system subject matter expert to upper management and prepare/present staff reports			
11. Develop Key Performance Indicators (KPIs) and ensure KPIs are tracked and met			
Sub-Domain 2.3 – Supervision and training			
1. Assign, evaluate, and supervise the work of collection system maintenance personnel			
2. Evaluate the completion of delegated duties			
3. Know principles and practices of effective leadership and employee supervision, including training and performance evaluation			
4. Develop and implement standard operating procedures (SOPs) and business processes			
5. Motivate staff and work with employees to achieve performance goals and objectives			

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6. Implement disciplinary policies and procedures and participate in labor relations activities			
7. Develop and maintain the training plan for all collection system personnel			
8. Participate in the hiring process			
9. Coach and mentor employees through constructive and tactful feedback			
Sub-Domain 2.4 – Public Relations and Customer Service			
1. Respond to and resolve complex and sensitive public inquiries and complaints in a professional manner			
2. Assist in the development of responses to the media			
3. Assist in public awareness and outreach programs			
4. Direct and support supervisors and staff to ensure quality service delivery			
5. Negotiate and resolve collection system issues involving the public and other external partners			
How would you rank Domain 2 based on what you selected for each Sub-Domain?			
Domain 3 – Safety and Regulations			
Sub-Domain 3.1 – Safety			
1. Develop, review, and ensure compliance with all applicable safety procedures (i.e., IIPP, confined space, traffic control, bloodborne pathogens, heat-related illnesses, etc.)			
2. Evaluate accidents, violations, or infractions and ensure documentation and reporting to the required entities			
3. Develop and administer safety training programs and policies for collection system personnel			
4. Ensure traffic safety plans meet the California Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) requirements			
5. Develop and implement a safety tailgate programs			
Sub-Domain 3.2 – Regulations			
1. Interpret relevant local, state, and federal laws, regulations, and guidelines associated with the ownership and maintenance of public sewer systems			
2. Oversee development, maintenance, and implementation of Sewer System Management Plan (SSMP) requirements			
3. Know and ensure compliance of Statewide General Waste Discharge Requirements (WDR) General Order for Sanitary Sewer Systems			
4. Know the principles of spill reporting and assure spill volume estimates			
How would you rank Domain 3 based on what you selected for each Sub-Domain?			

You may want to focus your studying in the areas where you selected "Limited Experience" or "Never Do This". See Collection System Maintenance Candidate Handbook.