Detroit Water and Sewerage Department

Class Code:

TITLE: APPLICATIONS ANALYST

SUMMARY:
The Applications Analyst plans, designs, configures, develops, and implements new applications and application enhancements.

ESSENTIAL JOB FUNCTIONS:
Meet with customers to define business requirements, applications and systems goals, and to identify and resolve applications and systems issues. Review and analyze the effectiveness and efficiency of existing applications and systems, and develop strategies for improving or further leveraging these applications and systems. Assist in the deployment of new applications and in delivering enhancements to existing applications. Perform application design, configuration, and integration. Can develop and maintain programs written in common programming languages including stored procedures and web services. Conduct cost-benefit and return on investment analyses for applications and systems in order to aid management in making acquisition and implementation decisions. Coordinate and perform tests for existing and new applications, including user acceptance tests. Provide training to end users. Identify potential risks and dependencies between applications, systems and business processes and provide solutions, impacts and recommendations to resolve conflicts if they should arise. Develop application prototypes and mockups to present to the project user group in an effort to collect functional clarifications and requirements. Plan, design, and implement additions, upgrades, replacements, or retirement of applications including the database management environment on the Web to support the capacity to store a substantial amount of data. A valid Michigan Driver's License and the ability to drive a motor vehicle on all terrain. Follow security and safety policies and procedures in carrying out work duties. Provide on the job training.

RELATED JOB FUNCTIONS:
Assist other IT staff and IT management as needed with overflow activities involving the support and maintenance of computers, printers, applications, databases, networks, servers, storage, and data center facilities, and the installation, decommissioning, and relocation of related IT equipment. Perform related work duties as assigned.

SUPERVISION EXERCISED:
The Applications Analyst – Level 3 may be required to perform team coordination activities within the functional unit.

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE OF:
- Web-based programming language (such as Java, Ruby, C#)
- Web technologies: HTTP, HTML, CSS, XSLT, DOM, JavaScript, Servlets, JSP, ASP, AJAX, Web Services
- User interface design and graphic software
- Operating system knowledge (Windows, Linux)
- Version Control Systems (such as CVS, SVN)
- Relational Databases (Oracle, SQL Server, schema design, object model relationships)

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KNOWLEDGE OF CONTINUED:
- Web Server (such as Apache, Tomcat, Mongrel, IIS)
- System Development Lifecycle and Agile development methodologies
- COBIT and ITIL, including Change Management, Software/Systems Development Life Cycle for application development and management
- Reporting tools (such as Business Objects and COGNOS)
- Principles and practices of the functions performed by IT Services
- Hardware, software, application, database and network environments currently in use at DWSD
- Principles and techniques of application development and languages in use at DWSD
- Principles and techniques of systems analysis, design and development lifecycle
- Installation and maintenance of hardware, software, application, database, and network components
- Water and wastewater business functions and operations

SKILL TO:
- Independently, and as part of a team providing timely, high quality customer-focused services
- Work in a busy environment, with frequent interruptions and still be able to prioritize and resolve conflicting requests
- Work in a professional manner with access to confidential and other data types
- Exercise good judgment, discretion, maintains confidentiality, and work with independence, initiative and professionalism
- Work in a team environment that provides the capacity for IT project delivery
- Resolve technology and user issues both verbally and in writing to end-users of varying computing skills
- Deliver quality written and presentations, including the ability to make technology understandable to end-users
- Understand and translate the needs of varied users into IT system requirements
- Use advanced technology

ABILITY TO:
- Organize, perform and or coordinate technology tasks and projects
- Install, remove, and make modifications to technology
- Instruct groups or individuals on technology
- Deliver quality customer service to users
- Write technical and non-technical documentation
- Interact and communicate with IT staff and business users
- Apply IT policies and programs in a manner aligned with the Department mission, goals, and strategies
- Learn new application software packages, operating systems, and IT processes and procedures
- Effectively utilize appropriate security and safety equipment and procedures

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ABILITY TO CONTINUED:
- Communicate effectively, both verbally and in writing
- Understand and follow verbal and written instructions
- Establish and maintain effective working relationships with others
- Communicate frequently with team members and other units across the Department about process, equipment or potential problems
- Develop proficiency in unit specific operations and software
- Direct team activities or to work as a team member
- Maintain regular and reliable attendance

REQUIRED EDUCATION AND EXPERIENCE (position requirements at entry)
- Associate's degree in Computer Science, Information Technology or related field and one (1) to three (3) years of experience; or combination of related work experience and education
- Possess a domain-specific entry level certification (i.e. Certified Business Process Analyst, JAVA Programming Associate)
- Acquire and maintain a vendor specific domain "associate" or "foundational" level certification (i.e. Microsoft Certified Solutions Associate or Oracle Certified Associate) within two (2) years of Level 1 designation
- Meet all of the requirements to advance to Applications Analyst Level 2 within two (2) years of Level 1 designation

ESSENTIAL REQUIREMENTS

Physical Requirements:
The physical demands described here are representative of those that must be met by an employee to successfully perform the essential duties of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential duties.

This position requires physical ability to climb, balance, stoop, kneel, crouch, crawl, reach, stand, walk, push, pull, lift, finger, grasp, feel, talk, hear see, and perform repetitive motions. Essential duties require the mental and/or physical ability to work in a standard office environment; read fine print on blueprints and display terminals; converse by telephone, two-way radio and in person using writing instruments, calculators, and personal computers; and strength to lift and carry up to 40 pounds. The work requires the ability to distinguish colors and to hear audible alarms. Incumbents may be subject to potentially hazardous physical conditions, atmospheric conditions, extreme temperatures, intense noise, and/or vehicle traffic.

Environmental Working Requirements:
Work is performed within an office, plant environment, remote sites, or other locations within the DWSD Service Area. Employees within this classification may be exposed to dust and electrical connections, and frequent work with computer equipment.

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Level Progression Requirements:
See Applications Analyst Job Progression Chart

Other Requirements:
Valid Michigan Driver's License
Ability to work irregular hours, commute to DWSD facilities and work sites, and respond to after hour emergencies and on-call responses

THE WAY WE WORK
The Employees of DWSD....
- Work and accept responsibility to search for, create and execute new and innovative approaches to improve the performance of DWSD's services and objectives
- Assist external and internal customers to serve their needs and take responsibility for continuously improving customer service
- Foster meaningful interaction among people through the exchange of information to produce understanding
- Continuously develop and use effective strategies and interpersonal styles to engage and guide others towards the accomplishment of identified objectives and goals in the best interest of the City and community
- Consistently work toward the common good of the organization and encourage others to do the same
- Conduct themselves at all times in a professionally appropriate and respectful manner in accordance with the DWSD Common Behaviors
- Apply the proper safety/security practices according to established protocols, guidelines and policies

This title is a non-Civil Service and at-will position. The organization may in its sole discretion fill this position on a full-time or part-time basis. The organization may in its sole discretion utilize a contract of employment, "direct hire", or other process to fill the Position within this Title. Incumbency in a position within this title does not create a property right or expectation for the incumbent. The presence of this title or the position within this title does not in any way restrict the organization's sole discretion to utilize independent contractors or other means to provide for the performance of this work.

The above statements describe the general nature and level of work performed by employees assigned to this class. Incumbents may be required to perform job-related responsibilities and tasks other than those stated in this specification. Specific job duties may vary from position to position. Employees in this class are required to undergo alcohol and drug screening, and are subject to a criminal background investigation.

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Rev: 1/10/2014

APPLICATIONS ANALYST

	LEVEL	QUALIFICATIONS (NECESSARY TO ENTER THIS LEVEL)		TIME CONSIDERAT...
Required	1	**Education & Requirements:** • Associate's degree in Computer Science, Information Technology or related field • One (1) to three (3) years of experience; or combination of related work experience and education • Possess a domain-specific entry level certification (i.e. Certified Business Process Analyst, JAVA Programming Associate)	**Demonstrated Ability To:** Business Systems: • Consult, coordinate and communicate with business units and IT staff to refine business requirements into tangible, functional requirements and technical specifications that both business and IT staff are able to interpret • Responsible for capacity planning and management, security planning and management, data management, systems maintenance, and performance management of one or more systems • Plan, design, and implement IT-related policies and procedures • Participate in information technology planning for hardware, software, and infrastructure • Coordinate with staff in various areas in different roles (application, project and technical management) developing different components of the functional design and requirements • Provide solutions and recommendations which integrate with current and future database, application, and infrastructure architectures • Identify potential risks and dependencies between applications, systems and business processes and provides solutions, impacts and recommendations to resolve conflicts if they should arise • Demonstrate ability to compose and provide project and technical documentation, including functional requirements and use cases, and technical specifications • Develop application prototypes and mockups to present to the project user group in an effort to collect functional clarifications and requirements • Provide production support for new and existing applications/interfaces. • Provide technical support resolving incidents, and creating / closing tickets • Maintain working knowledge of current industry information, vendor direction, new and emerging products, and technical architectures and approaches related to current and future organizational needs • Plan, design, and implement additions, upgrades, replacements, or retirement of applications including the database management environment on the Web to support the capacity to store a substantial amount of data	• Acquire and mai... vendor specific d... "associate" or "foundational" lev... certification (i.e. Microsoft Certifie... Solutions Associ... Oracle Certified Associate) within (2) years of Leve... designation • Advance to Applications Ana... Level 2 within tw... years of Level 1 designation

DETROIT WATER AND SEWERAGE DEPARTMENT
APPLICATIONS ANALYST
JOB PROGRESSION CHART

	LEVEL	QUALIFICATIONS (NECESSARY TO ENTER THIS LEVEL)		TIME CONSIDERATIONS
Required	1	**Education & Requirements:** • Associate's degree in Computer Science, Information Technology or related field • One (1) to three (3) years of experience; or combination of related work experience and education • Possess a domain-specific entry level certification (i.e. Certified Business Process Analyst, JAVA Programming Associate)	**Demonstrated Ability To:** Business Systems: • Consult, coordinate and communicate with business units and IT staff to refine business requirements into tangible, functional requirements and technical specifications that both business and IT staff are able to interpret • Responsible for capacity planning and management, security planning and management, data management, systems maintenance, and performance management of one or more systems • Plan, design, and implement IT-related policies and procedures • Participate in information technology planning for hardware, software, and infrastructure • Coordinate with staff in various areas in different roles (application, project and technical management) developing different components of the functional design and requirements • Provide solutions and recommendations which integrate with current and future database, application, and infrastructure architectures • Identify potential risks and dependencies between applications, systems and business processes and provides solutions, impacts and recommendations to resolve conflicts if they should arise • Demonstrate ability to compose and provide project and technical documentation, including functional requirements and use cases, and technical specifications • Develop application prototypes and mockups to present to the project user group in an effort to collect functional clarifications and requirements • Provide production support for new and existing applications/interfaces. • Provide technical support resolving incidents, and creating / closing tickets • Maintain working knowledge of current industry information, vendor	• Acquire and maintain a vendor specific domain "associate" or "foundational" level certification (i.e. Microsoft Certified Solutions Associate or Oracle Certified Associate) within two (2) years of Level 1 designation • Advance to Applications Analyst Level 2 within two (2) years of Level 1 designation

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	LEVEL		QUALIFICATIONS (NECESSARY TO ENTER THIS LEVEL)	TIME CONSIDER
	1		**Demonstrated Ability To Continued:** • Maintain confidentiality with regard to the information being processed, stored or accessed Follow security and safety policies and procedures in carrying out work duties • Provide on the job training • Perform related work duties as assigned	
Required	2	**Education & Experience Requirements for Level 1, plus the following:** • Bachelor's Degree in Computer Science, Information Technology or related field • Three (3) to five (5) years of related work experience; or combination of related work experience and education	**Demonstrated Ability for Level 1, plus the following:** Business Systems: • Advanced configuration and support of core software platform (ERP, CMMS, CIS, etc.) Web Systems: • Design, implement, layout, code, and update websites • Programming • Process Improvement of Search Engine Optimization Enterprise Reporting: • Dashboard and Business Intelligence • Reporting and Analytics Enterprise Content Management: • Analyze, design, and support Data Capture and ECM applications • Imaging Technologies Business Process Integration: • Develop, configure, test, and deploy data integrations	• Acquire a maintain specific d "professio "expert" o "master" l certificatio Microsoft Solutions Sharepoi Certified Professio SE Progr Certified Master) w (2) years 2 designa
Optional	3	**Education & Experience Requirements for Level 1-2, plus the following:** • A minimum of five (5) years of related work experience	**Demonstrated Ability for Levels 1-2, plus the following:** • Project management for assigned unit • Facilitate status meetings • Build and maintain an effective working relationship with assigned unit	

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