

# Water Authority Position Description

## SYSTEMS ANALYST III

Status	Position Code	Level	Date
APPROVED	SAN3	I29	Mar 2017

Job descriptions are intended to present a general list of the tasks/duties performed by employees within this job Classification. Job Descriptions are not intended to reflect all duties performed within the job.

### POSITION SUMMARY

THIS IS THE ADVANCED LEVEL IN THE SYSTEMS ANALYST JOB SERIES. ANALYZES USER REQUIREMENTS, PROCEDURES, AND PROBLEMS TO AUTOMATE BUSINESS PROCESSES OR IMPROVE EXISTING COMPUTER SYSTEMS. PERFORM THE MOST TECHNICALLY ADVANCED DUTIES AND SERVE AS TECHNICAL LEADS AND TECHNICAL SUBJECT MATTER EXPERTS FOR LARGE, TECHNICALLY COMPLEX, MULTI-DIVISION PROJECTS AND APPLICATIONS MANAGED AND SUPPORTED WITHIN THE INFORMATION SERVICES DIVISION. EMPLOYEES AT THIS LEVEL ARE DISTINGUISHED FROM OTHER CLASSES WITHIN THE SERIES BY THE EXTREMELY HIGH LEVEL OF TECHNICAL EXPERTISE AND HIGHLY COMPLEX DUTIES ASSIGNED.

### MIN EDUCATION & EXPERIENCE REQ

BACHELOR'S DEGREE FROM AN ACCREDITED COLLEGE OR UNIVERSITY IN INFORMATION SYSTEMS, COMPUTER SCIENCE OR A RELATED FIELD, PLUS EIGHT (8) YEARS OF LARGE SYSTEMS (I.E., SERVER BASED) APPLICATIONS ANALYSIS, DESIGN, PROGRAMMING AND IMPLEMENTATION EXPERIENCE, AND PROJECT TECHNICAL LEAD EXPERIENCE WORKING ON APPLICATION SYSTEMS DEVELOPMENT PROJECTS, TO INCLUDE TWO (2) YEARS EXPERIENCE AS A TECHNICAL LEAD ON COMPLEX TECHNICAL PROJECTS.

### ADDITIONAL REQUIREMENTS

POSSESSION OF, OR ABILITY TO OBTAIN AND MAINTAIN A VALID AUTHORITY OPERATOR PERMIT (AOP)  
POSSESSION OF A VALID NEW MEXICO DRIVER'S LICENSE

### SUPERVISION RECEIVED/EXERCISED

RECEIVES ADMINISTRATIVE GENERAL DIRECTION FROM HIGHER LEVEL SUPERVISORY OR MANAGEMENT STAFF.

MAY EXERCISE FUNCTIONAL AND TECHNICAL SUPERVISION OVER SUPPORT INFORMATION SYSTEMS STAFF.

MAY SERVE AS PROJECT TECHNICAL LEAD.

**ESSENTIAL FUNCTIONS**

1. PERFORM THE MOST COMPLEX, TECHNICALLY ADVANCED APPLICATIONS DEVELOPMENT TASKS, TO INCLUDE REQUIREMENTS ANALYSIS, SYSTEMS ANALYSIS, DESIGN, APPLICATION DEVELOPMENT AND TESTING, SYSTEM IMPLEMENTATION AND DEVELOPMENT OF SYSTEM DOCUMENTATION FOR MULTI-DIVISION SYSTEMS. DESIGN, DEVELOP, TEST AND IMPLEMENT COMPLEX SYSTEM INTERFACES.
2. MAY SERVE AS TECHNICAL LEAD OVER ALL ASPECTS OF ASSIGNED APPLICATIONS DEVELOPMENT AND SOFTWARE IMPLEMENTATION PROJECTS.
3. EVALUATE AND ASSESS CLIENT NEEDS. MAY IDENTIFY AND ALLOCATE RESOURCES INCLUDING STAFF, EQUIPMENT AND MATERIALS. SET TASK PRIORITIES.
4. CONFER WITH PERSONNEL OF ORGANIZATIONAL UNITS INVOLVED TO ANALYZE CURRENT OPERATIONAL PROCEDURES, IDENTIFY PROBLEMS, AND LEARN SPECIFIC INPUT AND OUTPUT REQUIREMENTS SUCH AS FORMS OF DATA INPUT, HOW DATA IS TO BE SUMMARIZED AND FORMATS FOR REPORTS.
5. WRITE DETAILED DESCRIPTIONS OF USER NEEDS, PROGRAM FUNCTIONS AND STEPS REQUIRED TO DEVELOP OR MODIFY COMPUTER PROGRAMS, AND APPLICATION SPECIFICATIONS INCLUDING DATABASE INTERFACES, USER INTERFACES, BUSINESS RULES, AND DATABASE RELATIONSHIPS.
6. REVIEW COMPUTER SYSTEM CAPABILITIES, WORKFLOW, AND SCHEDULING LIMITATIONS TO DETERMINE IF REQUESTED PROGRAM OR PROGRAM CHANGE IS POSSIBLE WITHIN EXISTING SYSTEM.
7. STUDY EXISTING INFORMATION PROCESSING SYSTEMS TO EVALUATE EFFECTIVENESS AND DEVELOP SPECIFICATIONS FOR NEW SYSTEMS OR PROTOTYPE SYSTEMS TO IMPROVE PRODUCTION OR WORKFLOW AS REQUIRED.
8. PREPARE WORKFLOW CHARTS AND DIAGRAMS USING AUTOMATED TOOLS TO SPECIFY IN DETAIL OPERATIONS TO BE PERFORMED BY EQUIPMENT AND COMPUTER PROGRAMS AND OPERATIONS TO BE PERFORMED BY PERSONNEL IN SYSTEM.
9. CONDUCT STUDIES PERTAINING TO DEVELOPMENT OF NEW COMPLEX INFORMATION SYSTEMS TO MEET CURRENT AND PROJECTED NEEDS.
10. PLAN AND PREPARE TECHNICAL REPORTS, MEMORANDA, AND INSTRUCTIONAL MANUALS AS DOCUMENTATION OF PROGRAM DEVELOPMENT FOLLOWING WATER AUTHORITY AND INFORMATION TECHNOLOGY DOCUMENTATION STANDARDS.
11. COORDINATE AND CONDUCT USER TRAINING, EDUCATION AND PROBLEM SOLVING SESSIONS. COUNSEL USERS REGARDING SYSTEM FUNCTIONALITY.

12. UPGRADE SYSTEM AND CORRECT COMPLEX ERRORS TO MAINTAIN SYSTEM AFTER IMPLEMENTATION. DIRECT AND COORDINATE WORK OF OTHERS TO DEVELOP, TEST, INSTALL, AND MODIFY PROGRAMS. TROUBLESHOOT COMPLEX PROBLEMS TO SOURCE. ASSIST OTHER ANALYSTS IN RESOLVING COMPLEX WORK PROBLEMS RELATED TO FLOW CHARTS, PROJECT SPECIFICATIONS, OR PROGRAMMING.
13. PREPARE TIME AND COST ESTIMATES FOR COMPLETING PROJECTS. PREPARE GANTT AND PERT CHARTS USING AUTOMATED PROJECT MANAGEMENT TOOLS.
14. DEVELOP REQUESTS FOR PROPOSALS (RFP)S. NEGOTIATE AND MANAGE VENDOR CONTRACTS FOR INFORMATION TECHNOLOGY SERVICES.
15. PREPARE AND PRESENT PROJECT PROGRESS REPORTS FOR DIVISION MANAGEMENT OR COMMITTEES. IDENTIFY PROBLEMS AND ISSUES. RECOMMEND SOLUTIONS.
16. REVIEW PROPOSED APPLICATION SOFTWARE FOR COMPLIANCE WITH APPLICABLE QUALITY ASSURANCE STANDARDS BEFORE ACQUISITION OR IMPLEMENTATION.
17. MANAGE THE RELATIONSHIP AND EXPECTATIONS OF USER PERSONNEL AND DIVISIONS INCLUDING THE PREPARATION OF SERVICE AGREEMENTS.
18. PROVIDE STRATEGIC PLANNING DIRECTION AND TECHNICAL ASSISTANCE FOR USER INFORMATION TECHNOLOGY PLANS.
19. PROVIDE TECHNICAL DIRECTION AND TRAINING TO MEMBERS OF THE SYSTEMS DEVELOPMENT STAFF AND OTHER TECHNICAL STAFF.
20. PARTICIPATE IN THE EMPLOYEE INTERVIEW/SELECTION PROCESS. TRAIN, EVALUATE AND COMMUNICATE WITH ASSIGNED STAFF. PROVIDE OR COORDINATE TRAINING. WORK WITH EMPLOYEES TO CORRECT DEFICIENCIES. IMPLEMENT DISCIPLINE AS NEEDED.
21. ENSURE THAT QUALITY METHODS AND PROCEDURES ARE EXECUTED. ENSURES THAT PRODUCTS, APPLICATIONS, AND SYSTEMS ARE IN COMPLIANCE WITH ESTABLISHED QUALITY STANDARDS AND MEET CUSTOMER REQUIREMENTS. ANALYZES BEST-IN-CLASS PROCESSES, UNDERSTANDS THE INTERACTION AND RELATIONSHIP OF BUSINESS OPERATIONS AND OPERATING SYSTEMS AND NETWORK PROCESSES.
22. PERFORM DEVELOPMENT TASKS, TO INCLUDE REQUIREMENTS ANALYSIS, SYSTEMS ANALYSIS, DESIGN, APPLICATION DEVELOPMENT AND TESTING, SYSTEM IMPLEMENTATION AND DEVELOPMENT OF SYSTEM DOCUMENTATION FOR MULTI-DIVISION SYSTEMS. DESIGN, DEVELOP, TEST AND IMPLEMENT SYSTEM INTERFACES. DEVELOPMENT TASKS TO INCLUDE USING PROGRAMMING LANGUAGES AND TOOLS SUCH AS: XHTML, SML, VB.NET, C#.NET, ASP.NET, JAVASCRIPT, PYTHON, ESRI ARCGIS 9.3, ARCOBJECTS 9.3, ARCCATALOG 9.3, ARCMAP 9.3, WEB ADF, AND MODEL BUILDER, VISUAL STUDIO 2008 OR HIGHER, .NET FRAMEWORK 2.0 OR ABOVE, WINDOW XP OR HIGHER, ORACLE SQL, MS ACCESS, EXCEL, AND WORD, MS PROJECT, ESRI GEOFILE DATABASES, PUTTY, ARCGIS API FOR SILVERLIGHT/WPF 1.3 OR HIGHER, TOAD, MS SQL SERVER, ORACLE 11G OR HIGHER, MS REPORTING SERVICES, ARCSDE 9.3 OR HIGHER, GLOBAL ASSEMBLY CACHE, SHAREPOINT, .NET FORMS AUTHENTICATION, WORKING WITH AND IMAGING/SCANNING SOFTWARE AND LIBRARIES, UNIX, JAVA, COBOL, SQL DEVELOPER, DB ARTISAN. APPLICATIONS INCLUDING ORACLE'S CUSTOMER CARE & BILLING, MAXIMO, MAXGIS, MAXWEB, COGNOS, KRONOS, UC4 SCHEDULING SOFTWARE, WEBLOGIC, WEBSPHERE, GIS, TELDIG ONECALL SYSTEM.

23. DEVELOP AND IMPLEMENT CHANGE CONTROL PLANS FOR PRODUCTION SYSTEMS.
24. WORK CLOSELY WITH DATABASE ADMINISTRATOR TO ENSURE CURRENT AND FUTURE OPERATIONAL HEALTH OF DATABASES.
25. PREPARE PRESENTATION MATERIALS FOR TECHNICAL CONFERENCES AND VENDORS.

### **SUPPLEMENTAL FUNCTIONS**

1. ATTEND AND PARTICIPATE IN PROFESSIONAL GROUP MEETINGS. STAY ABREAST OF NEW TRENDS AND INNOVATIONS IN THE FIELD OF INFORMATION SERVICES.
2. PERFORM COMPLEX TECHNICAL, MANAGEMENT OR ADMINISTRATIVE TASKS REPORTING DIRECTLY TO THE CHIEF INFORMATION OFFICER, AS NEEDED.
3. MAY REQUIRE 24X7 ON CALL AVAILABILITY.
4. PERFORM RELATED DUTIES AND RESPONSIBILITIES AS REQUIRED.

### **PREFERRED KNOWLEDGE**

COMPLEX THEORIES AND APPLICATIONS OF COMPUTER SCIENCE  
METHODS AND TECHNIQUES OF APPLICATION DEVELOPMENT, SYSTEM DESIGN,  
PROGRAMMING, INSTALLATION, TROUBLE SHOOTING AND MAINTENANCE OF COMPLEX  
SOFTWARE APPLICATIONS  
PERSONAL COMPUTER HARDWARE AND SOFTWARE COMPONENTS  
SYSTEM DEVELOPMENT LIFE CYCLE PHASES, ACTIVITIES AND IMPLICATIONS  
BASIC BUDGETING, CONTRACTING, PURCHASING PRACTICES, PROJECT MANAGEMENT  
METHODOLOGIES, POLICIES AND PROCEDURES  
ADVANCED PROGRAMMING TECHNIQUES INCLUDING COMPLEX/LARGE INTEGRATED  
DATABASE MANAGEMENT APPLICATIONS  
OPERATIONAL CHARACTERISTICS AND CAPABILITIES OF COMPLEX DATA BASE  
MANAGEMENT SYSTEMS  
PRINCIPLES AND PROCEDURES OF QUALITY ASSURANCE AND SECURITY RELATED TO  
COMPLEX, LARGE COMPUTER APPLICATIONS  
GATHERING BUSINESS REQUIREMENTS AND TRANSLATING THEM INTO INTERNET/WEB  
ARCHITECTURE TO ACHIEVE BUSINESS OBJECTIONS  
DEVELOPMENT AND SUPPORT OF ALL INTERNET/INTRANET/EXTRANET SITES AND  
SUPPORTING SYSTEMS  
DEMONSTRATED SKILLS IN GRAPHIC APPLICATIONS, HTML DEVELOPMENT TOOLS AND  
OTHER APPLICABLE AUTHORING TOOLS

KNOWLEDGE AND EXPERIENCE IN HTML, INCLUDING STYLE SHEETS, TEMPLATES, COMPLEX TABLES, FRAMES, IMAGE MAPS, CGI PROGRAMMING, APPLETS, ANIMATION, MULTIMEDIA DESIGN AND DELIVERY AND WEB PUBLISHING PROCEDURES  
DEVELOPMENT AND MANAGEMENT OF WEB SECURITY POLICIES AND PROCEDURES FOR THE ENTERPRISE  
DEVELOPMENT AND MAINTENANCE OF GEOSPATIAL DATABASES  
ABILITY TO PERFORM SPATIAL ANALYSIS AND DATABASE DEVELOPMENT, EXTRACTION AND MANIPULATION  
KNOWLEDGE OF IMPORTING AND EXPORTING AUTOCAD DRAWINGS TO/FROM GIS SYSTEM  
KNOWLEDGE OF HTML, XML, VB.NET, C#.NET, ASP.NET, JAVASCRIPT, PYTHON  
KNOWLEDGE OF ESRI ARCGIS 9.3, ARCOBJECTS 9.3, ARCCATALOG 9.3, ARCMAP 9.3, WEB ADF, AND MODEL BUILDER, VISUAL STUDIO 2008 OR HIGHER, .NET FRAMEWORK 2.0 OR ABOVE, WINDOW XP OR HIGHER  
SQL EXPERIENCE DEVELOPING QUERIES, TABLES, FUNCTIONS AND STORED PROCEDURES (SOME ORACLE EXPERIENCE PREFERRED)

KNOWLEDGE OF MS ACCESS, EXCEL, AND WORD, MS PROJECT, ESRI GEOFILE DATABASES, PUTTY, ARCGIS API FOR SILVERLIGHT/WPF 1.3 OR HIGHER, TOAD, MS SQL SERVER, ORACLE 11G OR HIGHER, MS REPORTING SERVICES, ARCSDE 9.3 OR HIGHER, GLOBAL ASSEMBLY CACHE, SHAREPOINT, .NET FORMS AUTHENTICATION, WORKING WITH AND IMAGING/SCANNING SOFTWARE AND LIBRARIES, UNIX, JAVA, COBOL, SQL DEVELOPER, DB ARTISAN  
APPLICATIONS INCLUDING ORACLE'S CUSTOMER CARE & BILLING, MAXIMO, MAXGIS, MAXWEB, COGNOS, KRONOS, UC4  
SCHEDULING SOFTWARE, WEBLOGIC, WEBSPHERE, GIS, TELDIG ONECALL SYSTEM

#### **PREFERRED SKILL/ABILITY**

RECOMMEND, DESIGN, IMPLEMENT, INSTALL AND MAINTAIN LARGE, COMPLEX COMPUTER SOFTWARE APPLICATIONS USED BY MULTIPLE AUTHORITY DIVISIONS  
APPLY A WIDE VARIETY OF COMPUTER PROGRAMMING LANGUAGES  
DEFINE COMPLEX PROBLEMS, COLLECT DATA, ESTABLISH FACTS, DRAW VALID CONCLUSIONS AND PREPARE APPROPRIATE REPORTS  
DETECT, ISOLATE AND RESOLVE COMPLEX INFORMATION SYSTEM PROBLEMS  
ANALYZE AND ASSESS THE TECHNOLOGICAL NEEDS OF MULTIPLE AUTHORITY DIVISIONS  
PROVIDE ADVANCED APPLICATION DEVELOPMENT PROJECT MANAGEMENT SERVICES  
MANAGE CUSTOMER RELATIONS AND EXPECTATIONS  
UTILIZE AUTOMATED PROJECT MANAGEMENT TOOLS  
IMPLEMENT QUALITY ASSURANCE AND SECURITY PROCEDURES FOR APPLICATIONS SERVICES  
EFFECTIVELY PRESENT INFORMATION AND/OR RESPOND TO INQUIRIES/COMPLAINTS FROM AUTHORITY MANAGEMENT, REGULATORY AGENCIES OR THE PUBLIC

PERFORM HIGHLY ADVANCED PROGRAMMING DUTIES  
PERFORM APPLICATION DESIGN FUNCTIONS FOR COMPLEX, MULTI-DIVISION SYSTEMS  
WORK INDEPENDENTLY IN THE ABSENCE OF SUPERVISION  
COMMUNICATE CLEARLY AND CONCISELY, BOTH ORALLY AND IN WRITING  
ESTABLISH AND MAINTAIN EFFECTIVE WORKING RELATIONSHIPS WITH THOSE CONTACTED IN THE COURSE OF WORK

#### **WORKING CONDITIONS**

OFFICE ENVIRONMENT; EXPOSURE TO COMPUTER SCREENS. MAY BE REQUIRED TO VISIT OFF SITE CLIENT OFFICES.

**PHYSICAL REQUIREMENTS**

MAINTAIN PHYSICAL CONDITION APPROPRIATE TO THE PERFORMANCE OF ASSIGNED DUTIES AND RESPONSIBILITIES SUCH AS: SITTING, STANDING FOR PROLONGED PERIODS OF TIME AND EXTENSIVE USE OF COMPUTER KEYBOARD  
MAINTAIN EFFECTIVE AUDIO-VISUAL DISCRIMINATION AND PERCEPTION NEEDED FOR MAKING OBSERVATIONS, COMMUNICATING WITH OTHERS, READING, WRITING AND OPERATING ASSIGNED EQUIPMENT