

# Water Authority Position Description

## SCADA SYSTEMS ANALYST

Status	Position Code	Level	Date
APPROVED	SCSA	I28	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

PERFORM A BROAD RANGE OF RESPONSIBLE AND COMPLEX COMPUTER SYSTEMS ADMINISTRATION DUTIES IN THE IMPLEMENTATION AND MAINTENANCE OF SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) OR OTHER COMPUTER INFORMATION SYSTEMS. PROVIDE COMPLEX TECHNICAL SUPPORT FOR DESKTOP, SERVER AND NETWORK HARDWARE, SOFTWARE AND/OR PERIPHERAL EQUIPMENT.

### MIN EDUCATION & EXPERIENCE REQ

BACHELOR'S DEGREE FROM AN ACCREDITED COLLEGE OR UNIVERSITY WITH MAJOR COURSEWORK IN INFORMATION SYSTEMS, COMPUTER SCIENCE OR A RELATED FIELD, PLUS FIVE (5) YEARS EXPERIENCE IN INFORMATION SYSTEM INSTALLATION AND MAINTENANCE, INCLUDING SCADA AND/OR PROGRAMMABLE LOGIC CONTROL SYSTEMS AND ASSOCIATED EQUIPMENT AND SOFTWARE TO INCLUDE TWO (2) YEARS DIRECT SUPERVISORY EXPERIENCE IN A MANAGEMENT AND/OR ADMINISTRATIVE CAPACITY.

### 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

RECEIVE GENERAL DIRECTION FROM HIGHER-LEVEL MANAGEMENT STAFF.  
MAY LEAD TECHNICAL STAFF.

### ESSENTIAL FUNCTIONS

1. OVERSEE THE OPERATION AND MAINTENANCE OF SCADA SYSTEMS SERVERS, WORKSTATIONS, NETWORKS, PC EQUIPMENT, PRINTERS AND RELATED EQUIPMENT INCLUDING SECURITY REQUIREMENTS.
2. TROUBLESHOOT, DIAGNOSE AND RESOLVE PCS, SERVERS, TELEMETRY EQUIPMENT AND OTHER COMPUTER-RELATED EQUIPMENT PROBLEMS TO ENSURE FUNCTIONAL OPERATION.
3. ANALYZE AND DEFINE SOFTWARE, DATABASE, GRAPHIC DISPLAY AND EXTERNAL SYSTEM INTERFACE REQUIREMENTS ADHERING TO WATER AUTHORITY INFORMATION TECHNOLOGY STANDARDS.
4. PERFORM BACK-UP PROCEDURES FOR ASSIGNED PC FILES. COORDINATE RESTORATION AND RETRIEVAL OF FILES AS NEEDED. MAINTAIN ALL FILES IN AN ACCURATE AND EFFICIENT MANNER.
5. DOWNLOAD DATA FROM DISKS AND TAPES TO VARIOUS COMPUTER SYSTEMS/PLATFORMS.
6. COORDINATE AND INSTALL CARDS, DRIVES, TAPES, MEMORY, PERIPHERAL EQUIPMENT AND SOFTWARE INTO STAND-ALONE OR NETWORK CONNECTED PCS AT CLIENT WORK LOCATIONS.
7. VERIFY HARDWARE AND SOFTWARE PURCHASE REQUESTS FOR ASSIGNED AREA. COMPLY WITH WATER AUTHORITY STANDARDS.
8. CONDUCT STUDIES PERTAINING TO DEVELOPMENT OF NEW INFORMATION SYSTEMS TO MEET CURRENT AND PROJECTED NEEDS.
9. STUDY EXISTING INFORMATION PROCESSING SYSTEMS TO EVALUATE EFFECTIVENESS AND DEVELOP SPECIFICATIONS FOR NEW SYSTEMS OR PROTOTYPE SYSTEMS TO IMPROVE PRODUCTION OR WORKFLOW AS REQUIRED.
10. PREPARE WORKFLOW CHARTS AND DIAGRAMS TO SPECIFY, IN DETAIL, OPERATIONS TO BE PERFORMED BY EQUIPMENT AND COMPUTER PROGRAMS AND OPERATIONS TO BE PERFORMED BY PERSONNEL IN SYSTEM.
11. UPGRADE COMPUTER APPLICATION SYSTEM SOFTWARE AND TROUBLESHOOT ERRORS TO MAINTAIN SYSTEM AFTER IMPLEMENTATION.
12. PERFORM SYSTEM ADMINISTRATION DUTIES INCLUDING SETTING UP AND MONITORING SERVER BACK-UP PROCESSES, ADDING NEW USERS, MODIFYING USER/GROUP PROFILES, AND MONITORING AND TUNING SERVER AND SYSTEM RESOURCES.

13. EVALUATE, INSTALL, TEST, AND IMPLEMENT NEW SERVERS, SERVER OPERATING SYSTEMS AND APPLICATION SOFTWARE PACKAGES. INSTALL NEW VERSIONS, RELEASES OR MAINTENANCE LEVELS OF EXISTING SERVER OPERATING SYSTEMS AND RELATED COMPONENTS.

14. COORDINATE AND CONDUCT USER TRAINING, EDUCATION AND PROBLEM SOLVING SESSIONS. COUNSEL USERS REGARDING SYSTEM FUNCTIONALITY. RESPOND TO USER COMPLAINTS AND INQUIRIES.

15. MAINTAIN NETWORK COMPONENTS, INCLUDING ROUTERS, BRIDGES, HUBS, MULTIPLEXORS AND SMART SWITCHES.

16. PERFORM PREVENTIVE MAINTENANCE TO PRECLUDE MAJOR NETWORK OUTAGES OR DEGRADATION TO CUSTOMER SERVICE.

17. DEVELOP, CUSTOMIZE, TEST AND IMPLEMENT MULTI-USER, SERVER-BASED APPLICATION SOFTWARE SYSTEMS.

18. SERVE AS LEAD OVER ALL ASPECTS OF ASSIGNED APPLICATIONS DEVELOPMENT AND SOFTWARE IMPLEMENTATION PROJECTS. EVALUATE AND ASSESS CLIENT NEEDS. IDENTIFY AND ALLOCATE RESOURCES INCLUDING STAFF, EQUIPMENT AND MATERIALS. SET TASK PRIORITIES.

19. CONFER WITH PERSONNEL OF ORGANIZATIONAL UNITS INVOLVED TO ANALYZE CURRENT OPERATIONAL PROCEDURES. IDENTIFY USER PROBLEMS AND SYSTEM NEEDS, AND LEARN SPECIFIC INPUT AND OUTPUT REQUIREMENTS, SUCH AS FORMS FOR DATA INPUT, HOW DATA ARE TO BE SUMMARIZED AND FORMATS FOR REPORTS.

20. WRITE DETAILED DESCRIPTION OF USER NEEDS, PROGRAM FUNCTIONS AND STEP REQUIRED TO DEVELOP OR MODIFY COMPUTER PROGRAMS, AND APPLICATION SPECIFICATIONS INCLUDING DATABASE INTERFACES, USER INTERFACES, BUSINESS RULES, AND DATABASE RELATIONSHIPS.

21. DEVELOP REQUEST FOR PROPOSALS (RFPS). NEGOTIATE AND MANAGE VENDOR CONTRACT FOR INFORMATION TECHNOLOGY SERVICES.

22. REPRESENT ASSIGNED AREA AT TECHNICAL REVIEW COMMITTEE AND INFORMATION SERVICE COMMITTEE MEETINGS FOR COMPUTER-RELATED PURCHASE APPROVALS.

23. PROGRAM, TEST AND IMPLEMENT SYSTEM AND USER INTERFACES TO EXISTING AND NEW APPLICATION SYSTEMS.

### **SUPPLEMENTAL FUNCTIONS**

1. ADMINISTER KEY CONTROL SYSTEM, DOOR ACCESS AND CAMERA CONTROL SECURITY SYSTEMS.

2. ASSIST HIGHER-LEVEL STAFF DEVELOP REQUEST FOR PROPOSALS (RFPS). NEGOTIATE AND MANAGE VENDOR CONTRACT FOR INFORMATION TECHNOLOGY SERVICES.

3. ATTEND AND PARTICIPATE IN PROFESSIONAL GROUP MEETINGS. STAY ABREAST OF NEW TRENDS AND INNOVATIONS IN THE FIELD OF INFORMATION SYSTEMS.

4. PERFORM RELATED DUTIES AND RESPONSIBILITIES AS REQUIRED.

**PREFERRED KNOWLEDGE**

OPERATIONAL CHARACTERISTICS OF A VARIETY OF COMPUTER PLATFORMS, NETWORKS, SOFTWARE APPLICATIONS AND OPERATING SYSTEMS, INCLUDING SCADA SYSTEMS  
ADVANCED METHODS AND TECHNIQUES USED IN THE INSTALLATION, TESTING, TROUBLESHOOTING AND MAINTENANCE OF PCS, SERVERS, PLCS AND RELATED EQUIPMENT

METHODS AND TECHNIQUES OF APPLICATION SYSTEMS ANALYSIS, DEVELOPMENT, DESIGN, PROGRAMMING, TESTING AND IMPLEMENTATION OF APPLICATION SOFTWARE

METHODS AND TECHNIQUES OF SCADA SYSTEMS DATABASE MANAGEMENT AND ADMINISTRATION FOR LARGE-SCALE, SERVER-BASED DATABASE SYSTEMS

ADVANCED METHODS AND TECHNIQUES USED IN MAINTAINING INFORMATION SYSTEMS SECURITY

METHODS AND TECHNIQUES OF MANAGING PROGRAMMING AND TROUBLESHOOTING OF CAMERA SECURITY SYSTEMS.

METHODS AND TECHNIQUES OF PROVIDING USER ASSISTANCE

PRINCIPLES AND PROCEDURES OF RECORD KEEPING

PRINCIPLES OF BUSINESS LETTER WRITING AND BASIC REPORT PREPARATION

PRINCIPLES AND PRACTICES OF PROGRAM DEVELOPMENT AND ADMINISTRATION

**PREFERRED SKILL/ABILITY**

RECOMMEND, IMPLEMENT, INSTALL AND MAINTAIN APPROPRIATE TECHNOLOGY TO MEET CLIENT NEEDS

DEFINE PROBLEMS, COLLECT DATA, ESTABLISH FACTS, DRAW VALID CONCLUSIONS AND PREPARE APPROPRIATE REPORTS

DETECT, ISOLATE AND RESOLVE AUTOMATED INFORMATION SYSTEM PROBLEMS

COMMUNICATE CLEARLY AND CONCISELY, BOTH ORALLY AND IN WRITING

ESTABLISH AND MAINTAIN EFFECTIVE WORKING RELATIONSHIPS WITH THOSE

CONTACTED IN THE COURSE OF WORK

MAINTAIN MENTAL CAPACITY, WHICH ALLOWS THE CAPABILITY OF MAKING SOUND DECISIONS AND DEMONSTRATING INTELLECTUAL CAPABILITIES

MAINTAIN PHYSICAL CONDITION APPROPRIATE TO THE PERFORMANCE OF ASSIGNED DUTIES AND RESPONSIBILITIES

MAINTAIN EFFECTIVE AUDIO-VISUAL DISCRIMINATION AND PERCEPTION NEEDED FOR MAKING OBSERVATIONS, COMMUNICATING WITH OTHERS, READING, WRITING AND OPERATING ASSIGNED EQUIPMENT

DESIGN, IMPLEMENT AND MAINTAIN INFORMATION SYSTEMS AND SUPPORTING HARDWARE AND SOFTWARE APPLICATIONS

DESIGN, DEVELOP AND/OR CUSTOMIZE MULTI-USER, SERVER-BASED APPLICATION SOFTWARE SYSTEMS

DETECT, ISOLATE AND RESOLVE INFORMATION SYSTEM PROBLEMS

MONITOR SYSTEM AND NETWORK ACTIVITIES

PLAN, ORGANIZE, DIRECT AND COORDINATE THE WORK OF LOWER LEVEL STAFF

DELEGATE AUTHORITY AND RESPONSIBILITY

PERFORM HIGHLY ADVANCED SERVER ADMINISTRATION TASKS AND RESOLVE COMPLEX SERVER PROBLEMS

PERFORM DATABASE ADMINISTRATION TASKS FOR LARGE, MULTI-USER, SERVER-BASED DATABASE SYSTEMS

PERFORM PROJECT MANAGEMENT FOR LARGE-SCALE INFORMATION SYSTEM PROGRAMS

**WORKING CONDITIONS**

OFFICE ENVIRONMENT; EXPOSURE TO COMPUTER SCREENS; MAY BE REQUIRED TO WORK AT MULTIPLE WORKSITES; LIMITED EXPOSURE TO DUST, GREASE AND NOISE

**PHYSICAL REQUIREMENTS**

ESSENTIAL AND MARGINAL FUNCTIONS MAY REQUIRE MAINTAINING PHYSICAL CONDITION NECESSARY FOR SITTING FOR PROLONGED PERIODS OF TIME; EXTENSIVE USE OF COMPUTER KEYBOARD AND COMPUTER DISPLAY; TRAVEL FROM OFFICE TO VARIOUS SITES, MODERATE TO LIGHT LIFTING AND MOVEMENT OF EQUIPMENT; BENDING, STOOPING, KNEELING