



## **WATER SYSTEMS TECHNICIAN**

### **DEFINITION:**

Under general supervision, performs skilled work maintaining the water irrigation systems used in the City's parks, sports fields, and landscaped areas; performs related duties as required.

### **DISTINGUISHING CHARACTERISTICS:**

This is a journey level classification and is distinguished by providing technical, specialized computer skills relating to the irrigation maintenance management system to optimize the watering efficiency of City landscaped areas.

### **EXAMPLES OF ESSENTIAL FUNCTIONS:**

Essential functions may include, but are not limited to, the following:

1. Enters water usage data into the computerized irrigation maintenance management system; sets up programs to connect remote sites to the system; installs software updates; downloads water usage information from weather stations to a personal computer; and uploads program schedules to remote sites for tracking and scheduling water usage at City parks and landscaped areas.
2. Assists in the installation, repair and maintenance of City irrigation and sprinkler systems; advises other Park personnel on the operation of specialized controllers, flow meters, master control valves and related irrigation components.
3. Identifies and troubleshoots problem areas with irrigation systems, including check valves, backflow devices, clocks and timers, electrical irrigation devices, and flow meters; makes repairs when necessary.
4. Plans and lays out irrigation systems for parks, ball fields, and landscaped areas including location of sprinklers, type and number of sprinkler heads, and watering times to provide adequate irrigation necessary to maintain plant growth.
5. Performs water audits and requests independent water audits of City landscaped areas; calculates evapotranspiration (ET) rates to determine if an area is being over or under watered; determines optimum watering times and coverage. Reviews the audit results and makes adjustments to water scheduling and irrigation programming of specific sites.
6. Analyzes City water bills for possible billing errors, and to assist with forecasting water usage for budget purposes.
7. Meets with vendors to obtain new product information, discuss service contracts, and to understand changes in systems operations based upon software updates; purchases components for irrigation maintenance management system.

## **Water Systems Technician - Continued**

8. Maintains and updates department standards and specifications for irrigation equipment; maintains inventory records and issues parts to maintenance personnel; and, tracks purchases of supplies and materials used in the irrigation management system.
9. Reviews park plans and specifications relating to irrigation systems and components; makes recommendations to developers and contractors relating to specifications on irrigation system design.
10. Reads and interprets diagrams, blueprints, specifications, and operating manuals to understand the mechanical and electrical systems to assist in the installation, maintenance, and repair of irrigation systems.
11. Trains and advises Parks personnel on the operational characteristics of the computerized irrigation maintenance management system; makes recommendations to the Parks Superintendent for improvements to the system.
12. Installs and makes repairs to irrigation systems by operating hand tools such as shovels and handsaws; power tools such as drills and power saws; and equipment such as trenchers and electrical testing equipment.
13. Tests backflow devices to ensure they are operating properly; repairs or reports problems to be repaired; recommends replacement of devices; maintains spreadsheet of scheduling and testing to stay in compliance with State laws.
14. Drives City truck to and from work sites to service customers and assist personnel; keeps tools and equipment in good working order.
15. May act as a lead worker by supervising the work of parks maintenance personnel on special park projects relating to irrigation installation, maintenance and repair.
16. May attend meetings relating to water usage, water conservation, landscaping, and irrigation as a representative of the Department.

### **KNOWLEDGE, SKILLS, AND ABILITIES**

- Thorough knowledge of methods and materials used in sprinkler and irrigation system installation, maintenance and repair; the components and operational characteristics of a computerized irrigation maintenance management system; rules, regulations, policies, and operating procedures of the Parks Division; applicable Clark County and State of Nevada regulations and policies; methods, materials, and standards used to install, test, maintain and repair commercial irrigation water meters, valves, and electronic control devices; operational characteristics and methods used to inspect, test, and repair backflow assemblies; safe work methods and safety regulations pertaining to parks maintenance; the City's billing cycles and rate structure.
- Good knowledge of basic arithmetic; personal computers and peripheral hardware; location and layout of Henderson parks and landscaped areas; and, water auditing practices and procedures.
- Ability to operate a keyboard; ability to read and understand engineering drawings,

## **Water Systems Technician - Continued**

residential development plans and street maps; ability to plan, organize and direct the work of assigned staff, prepare and maintain written and verbal reports of work activities; use sound judgment and initiative within standards provided; understand and follow verbal and written instructions; communicate effectively verbally and in writing; establish and maintain cooperative working relationships with those contacted in the course of work.

- Skill in the use of hand and power tools.

### **MINIMUM QUALIFICATIONS**

#### **Training and Experience**

Graduation from high school or the equivalent and four (4) years of progressively responsible experience in landscaping maintenance, with at least two (2) years performing irrigation installation, maintenance and repair as the primary work function, OR any equivalent combination of closely-related training and experience. Previous supervisory experience and experience utilizing a computerized irrigation maintenance management system is desirable.

#### **Special Requirements/Licenses and Certificates**

Must possess a valid Nevada driver's license at time of appointment and maintain a satisfactory driving record. Must obtain a backflow prevention tester certificate, water auditor certificate, and a Maxicom Level II User certificate within six (6) months of appointment as a condition of continued employment. All required licenses and certificates, as mandated by State and Federal laws or as required herein, must be obtained and maintained at the incumbents' expense.

#### **Physical Requirements**

Vision sufficient to read technical manuals, maps, engineering drawings and data on a CRT; speech sufficient to make oneself heard in person and over the phone; hearing sufficient to hear verbal instructions and normal conversations over the phone and radio; mobility to walk, sit, climb, balance, stoop, kneel, crouch or crawl; dexterity sufficient to operate hand tools and other equipment utilized in the course of work; strength sufficient to lift and move backflow prevention device weighing up to 50 pounds on an occasional basis; and, endurance sufficient to sit and stand for long periods of time.

#### **Working Environment**

Work environment is divided between a climate-controlled office and the field, which includes a wide range of weather conditions with temperatures ranging from below 40

## **Water Systems Technician - Continued**

degrees to above 100 degrees. Incumbents may be required to work during evenings, weekends, and holidays.

Approved by Council – 11-3-98