

CITY OF RIVERSIDE
HUMAN RESOURCES DEPARTMENT
CLASSIFICATION SPECIFICATION

TITLE: UTILITIES ASSISTANT WATER ENGINEER
UTILITIES ASSOCIATE WATER ENGINEER
UTILITIES SENIOR WATER ENGINEER

DEFINITION

Under general supervision, to perform supervisory and/or professional water engineering work in the design, investigation and construction of water utility projects; and to do related work as required.

DISTINGUISHING CHARACTERISTICS

Work in this class series ranges from entry level technical work to complex professional water utility engineering work. As incumbents progress through this job series, projects become considerably more technically demanding and may involve direct supervisory responsibilities and duties. The three levels in this class series may be distinguished as follows:

Utilities Assistant Water Engineer - This is the entry level class in the professional water engineering series. Incumbents of this class perform the less complex professional engineering work under close supervision. Determines and acts within strict limits of approved plans, programs, budgets, policies, standards, and established procedures. All deviations require prior approval.

Utilities Associate Water Engineer - Positions in this class are normally filled by advancement from the lower class of Utilities Assistant Engineer, or when filled from the outside, require prior advanced technical or professional engineering work experience. An Utilities Associate Water Engineer works under general supervision and is expected to complete complex engineering assignments requiring the use of general policies, and determining work assignments. Work in this class is distinguished from that of the Utilities Assistant Water Engineer class by the greater complexity of the assignments received and by the greater independence with which an incumbent is expected to operate.

Incumbents (Utilities Assistant and Utilities Associate Water Engineers) in this class series may expect to advance to the next level within this series when the department confirms that the incumbent is able to perform the full range of assignments at the performance standard of the higher level position and educational and experience requirements have been attained.

Utilities Senior Water Engineer - This is the top level in the water engineering series. Work is at the highest level of engineering and may involve the direct supervision of professional and technical personnel. Assignments are general and of continuing nature, requiring the exercise of independent judgment and initiative in scheduling, assigning, and coordinating the work with that of other units. Incumbents are also expected to perform the most complex professional engineering work, requiring a substantial level of professional training and experience.

REPORTS TO: Engineering Management staff

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from engineering management staff.

Exercises close to general supervision over Engineering Technicians, Engineering Aides and administrative support staff as assigned.

EXAMPLES OF DUTIES

Duties may include, but are not limited to, the following:

Utilities Assistant Water Engineer

- _ Performs studies of technical, environmental, and economic feasibility, engineering field studies, and related studies pertaining to proposed and existing municipal facilities.
- _ Prepares contracts and specifications for engineering and construction services.
- _ Plans and performs their own work and completes special projects requiring engineering and technical ability as assigned.
- _ Provides background information and documentation for management consideration on various projects.
- _ Makes sound decisions on minor problems related to the work being performed based on established guidelines and principles and supervisor guidance.

Utilities Associate Water Engineer

In addition to the duties of an Utilities Assistant Water Engineer, typical duties may include, but are not limited to, the following:

- _ Complete special projects requiring advanced engineering and technical ability.
- _ Develop and update written directives for the department and for use by other employees to include engineering guidelines, standard material lists, standard specifications, and other technical and administrative policies and procedures as applicable.
- _ Research activities pertaining to water materials and engineering practices.
- _ Prepare and review economic, hydraulic and hydrogeologic analyses and project justification reports.
- _ Develop major engineering projects and other engineering projects with unique problems which have an important effect on major public works projects.
- _ Provide background information and documentation for management consideration on major projects and technical matters involving advanced engineering theories, concepts and principles.

Utilities Senior Water Engineer

In addition to the duties of an Utilities Associate Water Engineer, typical duties may include, but are not limited to, the following:

- _ Perform complex studies of technical, environmental, and economic feasibility, engineering field studies, and related studies pertaining to proposed and existing system facility improvements.
- _ Plan own work and the work of others.
- _ Complete special projects that are frequently of long duration and complexity.
- _ Work with other engineering personnel with limited experience in an advisory or supervisory capacity.
- _ Make decisions independently on technical problems and methods related to the work being performed.

QUALIFICATIONS

Knowledge of:

- _ Principles and practices of water engineering and other engineering disciplines used in the water utility industry.
- _ Modern methods and techniques used in the design and construction of a wide variety of water utility projects.
- _ Modern developments, current literature and sources of information regarding water engineering.
- _ Applicable laws of regulatory codes relevant to design and construction of water utility facilities.
- _ Principles of supervision, training and performance evaluation.
- _ Technical report writing.
- _ Computers and computer programs.

Ability to:

- _ Make complex engineering computations and to check, design and supervise the construction of a wide variety of water utility facilities.
- _ Communicate clearly and concisely, both orally and in writing.
- _ Apply technical insight and sound judgment necessary in the solution of difficult and complex problems.
- _ Complete projects which require moderate to complex research of current and past technical literature and the interpretation and adoption of information in order to fit the kinds of situations encountered.
- _ Use and apply engineering economic principles.
- _ Supervise, train and evaluate professional and technical subordinates.

Education and Experience:

Any combination of experience and education that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Utilities Assistant Water Engineer - A Bachelor's degree in civil or mechanical engineering from an accredited college or university, or a Bachelor's degree from an accredited college or university in a closely related area and one year of experience performing professional water utility or related engineering work.

Utilities Associate Water Engineer - A Bachelor's degree in civil or mechanical engineering or in a closely related area from an accredited college or university and two years of experience in professional engineering work comparable to that of an Utilities Assistant Water Engineer in the City of Riverside, or a Bachelor's degree from an accredited college or university in a closely related area and three years of experience performing professional water utility or related engineering work comparable to that of an Utilities Assistant Water Engineer in the City of Riverside.

Utilities Senior Water Engineer - A Bachelor's degree in civil or mechanical engineering from an accredited college or university and four years of experience in professional water engineering work comparable to that of an Utilities Assistant/Utilities Associate Engineer in the City of Riverside, or a Bachelor's degree from an accredited college or university in a closely related area and five years' of experience performing professional water utility or related engineering work comparable to that of an

Utilities Assistant/Utilities Associate Engineer in the City of Riverside. A Master's degree in a field related to water utility engineering is highly desirable.

MEDICAL CATEGORY: Group 1

NECESSARY SPECIAL REQUIREMENT

Possession of an appropriate, valid class "C" California Motor Vehicle Operator's License.

An Engineer-in-Training Certificate is required for the Assistant/Associate Engineer classes.

Registration in California as a Professional Engineer is required for the Senior Engineer class.

CAREER ADVANCEMENT OPPORTUNITIES

FROM: Utilities Assistant Water Engineer

TO: Utilities Associate Water Engineer

TO: Utilities Senior Water Engineer