



**APPROVED BY: THE CHIEF
OPERATING OFFICER**

EFFECTIVE: May 2019

HYDROGRAPHER I/II

Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.

DEFINITION

To perform field work in the gathering and analysis of hydrologic and meteorologic data; to provide hydrologic data to internal and external stakeholders; and to perform a variety of tasks relative to assigned area of responsibility.

DISTINGUISHING CHARACTERISTICS

Hydrographer I

This is the entry level class in the Hydrographer series. Employees have only limited or no directly related work experience. This class is distinguished from the Hydrographer II by performing the more routine tasks and duties assigned to positions within the series under immediate supervision while learning to perform the full range of responsibilities as assigned. Advancement to the "II" level is based on demonstrated proficiency in performing the assigned functions, and is at management's discretion.

Hydrographer II

This is the journey level class within the Hydrographer series. Employees within this class are distinguished from the Hydrographer I by performing the full range of duties as assigned with only occasional instruction or assistance as new or unusual situations arise, and are fully aware of the operating procedures and policies of the work unit. Positions in this class are flexibly staffed and are normally filled by advancement from the "I" level, or when filled from the outside, have prior experience.

SUPERVISION RECEIVED AND EXERCISED

Hydrographer I

Receives immediate supervision. Employees within this class work in the presence of their supervisor or in a situation of close control and easy reference. Work assignments are given with explicit instructions or are so routine that few, if any, deviations from established practices are made without checking with the supervisor.

Hydrographer II

Receives general supervision. The assigned duties for employees within this class require the exercise of judgment or choice among possible actions, sometimes without clear precedents and with concern for the consequences of the action. Employees may or may not work in proximity to their supervisor.

TYPICAL DUTIES

The duties specified below are representative of the nature and level of duties assigned to this class and are not intended to be an inclusive list. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this position. Management reserves the right to add, modify, change, or rescind the work assignments of different positions

1. Collect, interpret, and evaluate hydrographic, hydrologic, meteorologic, and other data affecting both ground and surface water availability, needs, and uses.
2. Compile, analyze, develop, operate, and maintain software, hydrological databases, reporting formats, and procedures.
3. Perform streamgaugings in all flow ranges; develop and maintain streamflow rating and shift curves.
4. Evaluate equipment and sites for the design of data gathering networks; install, maintain, calibrate, troubleshoot, and repair mechanical, pneumatic, and radio telemetering hydrologic measuring instruments.
5. Read and interpret wiring diagrams, schematics, and specifications; prepare and maintain records, logs, reports, maps, charts, graphs, and photographs.
6. Operate various data collection tools and equipment including survey instruments, power tools, electronic test instruments, and computers.
7. Respond to requests for information from engineers, consultants, developers, geologists, and public agencies; provide hydrologic and weather information and forecasts to maintenance and other staff as requested.

8. Provide support in emergency preparedness functions; participate in emergency drills, earthquake response testing, and other emergency operations.
9. Attend and participate in professional group meetings; stay abreast of new trends and innovations in the field of hydrologic and meteorological monitoring.
10. Employees have a responsibility for safety; for following safety regulations and safety policies and procedures applicable to their work.
11. Pursuant to California Government Code Section 3100, all public employees are required to serve as disaster service workers subject to such disaster service activities as may be assigned to them by their supervisors or by law.
12. Perform related duties and responsibilities as required.

QUALIFICATIONS

The level and scope of the knowledge, skills and abilities listed in this section are related to the job duties as defined under Distinguishing Characteristics.

Hydrographer I

Some Knowledge of:

Principles and theories of hydrology, hydraulics, geology, and meteorology.
Operational characteristics of mechanical current meters, telemetering equipment, and other mechanical and electronic devices.
Principles of mathematics including algebra and trigonometry.
Principles of business writing and report preparation.

Ability to:

Learn to operate and maintain field and office equipment for gathering and analyzing hydrologic data.
Learn methods and techniques involved in gathering and analyzing data related to water quality, surface and groundwater supply and use.
Learn hydrological databases, firmware, and common desktop software and applications.
Create, read, and interpret maps, graphs, plans, engineer drawings, schematics, and diagrams.
Learn to operate hydroacoustic and mechanical current meters.
Respond to requests for information from many internal and external stakeholders.
Prepare and record clear and concise field notes and observations.
Perform mathematical calculations.
Respond to emergency situations in a calm manner.
Learn to compile and interpret hydrologic data, identify trends in order to maintain shifted rating curves.

Interpret and apply applicable federal, state, and local policies, laws, and regulations (USGS Standards; LSAAs; Fish and Wildlife MOUs).
Communicate clearly and concisely, both orally and in writing.
Establish and maintain effective working relationships with those contacted in the course of work.

Training and Experience Guidelines

The following combination represents the minimum training and experience requirements for this classification:

Training

Equivalent to a Bachelor's degree from an accredited college or university with major course work in engineering, geology, hydrology, hydraulics, sciences, or a related field.

Experience

One (1) year of experience in gathering and analyzing hydrologic and meteorologic data.

License or Certificate

Possession of, or ability to obtain, an appropriate, valid California driver's license.

Hydrographer II

Working Knowledge of:

Methods and techniques involved in gathering and analyzing data related to water quality, surface and groundwater supply and use.
Principles of mathematics including algebra and trigonometry.
Operation and maintenance of instruments used to gathering and analyze geologic and meteorologic data.
State Senate Bill 88 (measuring and reporting the diversion of water).

Ability to:

Conduct streamflow measurements in the full range of flow conditions, using a variety of flow meters and measurement methods.
Operate and maintain field and office equipment for gathering and analyzing hydrologic data.
Compile and interpret hydrologic data; identify trends in order to maintain shifted rating curves.
Prepare clear and concise reports.
Independently maintain assigned stations in a hydrologic data collection network.

Training and Experience Guidelines

The following combination represents the minimum training and experience requirements for this classification:

Training

Equivalent to a Bachelor's degree from an accredited college or university with major course work in engineering, geology, hydrology, hydraulics, sciences, or a related field.

Experience

Three (3) years of experience in gathering and analyzing hydrologic and meteorologic data using computerized field and office systems.

License or Certificate

Possession of, or ability to obtain, an appropriate, valid California driver's license.

WORKING CONDITIONS

Environmental Conditions

Office and field environment; some positions require frequent field visits or occasional field assignments; travel from site to site; work closely with others or alone; exposure to electrical and radiant energy; irregular work hours including overtime and possible rotating shifts; some positions may involve exposure to inclement weather; heat, cold, dampness, chilling and dry atmospheric conditions; uneven terrain; slippery surfaces; work in confined spaces; work at elevated heights, work with machinery; work around moving vehicles and around high traffic; exposure to biohazards; dirt, dust, fumes, vapors, smoke, gases, noise, poison oak, chemicals, biological and chemical contaminants, wildlife, and other conditions associated with construction sites, water treatment plants and urban and remote field conditions.

Physical Conditions

Essential and other important functions may require maintaining physical condition necessary for walking, standing or sitting for extended periods of time; audiovisual acuity; manual dexterity; moderate lifting; operating motorized equipment and vehicles, walking on uneven surfaces including hard terrains, uneven slopes, and inclined surfaces; stooping, pushing, pulling, squatting, crawling, twisting, kneeling, climbing, and bending at neck and waist; simple grasping; fine manipulation; power grasping; work above and below shoulder and in awkward positions.

CLASS LEGEND

Established Date: 5/2018
Employee Groups: EA
Revisions Dates: 5/2019
FLSA Status: Non-exempt

	<u>Current</u>	<u>Previous</u>
Class Code:	CE1/5	
Series Code:	1CC	
Family Code:		
Previous Titles:		
Analyst:	FD	