#### **EXHIBIT 5-A**

#### MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

#### ASSOCIATE HYDROLOGIST

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

## **DEFINITION**

To develop and maintain complex and difficult programs related to managing the District's surface water resources including the stream flow monitoring program; to design, install and maintain stream flow gauging stations; and to perform a variety of technical tasks relative to assigned areas of responsibility.

## **DISTINGUISHING CHARACTERISTICS**

This is the advanced journey level class in the professional Hydrologist series. Positions at this level are distinguished from other classes within the series by the level of responsibility assumed and the complexity of duties assigned. Employees perform the most difficult and responsible types of duties assigned to classes within this series and function with minimal supervision and guidance. Employees at this level are required to be fully trained in all procedures related to assigned area of responsibility.

## SUPERVISION RECEIVED AND EXERCISED

Receives direction from the Water Resources Manager.

May exercise functional and technical supervision over lower level staff.

## ESSENTIAL AND MARGINAL FUNCTION STATEMENTS

The following duties are typical for positions in this classification. Any single position may not perform all of these duties and/or may perform similar related duties not listed here:

#### **Essential Functions:**

- 1. Design and perform complex hydrologic related research studies; establish methodology and standards; perform data analyses and interpretation relating to surface water quality and quantity; guide technical field staff in data collection, analyses, storage, retrieval and reporting.
- 2. Provide technical support for long-term and interim water supply projects, water rights studies, river erosion and sedimentation processes, fisheries, riparian vegetation and surface water modeling projects.
- 3. Inspect river to identify erosion hazards; perform erosion control and revegetation project design and implementation, including surveying, drafting, and cost estimation; present projects to community groups and prepare permit applications.
- 4. Conduct hydrologic analyses of proposed water supply projects including effects on river channel geometry, flood elevations, riparian vegetation and sediment transport; assist in the preparation of off-site mitigation plans.
- 5. Design, install and maintain stream flow gauging stations; perform stream flow measuring and analysis; calibrate, troubleshoot and maintain ALERT stream flow monitoring base stations.
- 6. Operate, maintain and repair stream flow measuring equipment including survey equipment and stream flow measuring gear.
- 7. Manage computer database and filing system, compute stream flow records, tabulate rainfall records and prepare technical reports; produce computerized graphics of hydrologic data collected.
- 8. Administer contracts for construction projects and hydrologic studies and inspect work activities of contractors; prepare "as built" drawings.
- 9. Attend and participate in professional group meetings; stay abreast of new trends and innovations in the field of surface and ground water resource management and stream flow monitoring.
- 10. Hike into remote areas to make inspections, measurements and observations and to conduct studies.

# MONTEREY PENINSULA WATER MANAGEMENT DISTRICEXHIBIT 5-A Associate Hydrologist (Continued)

- 11. Operate and maintain the fish counter logging system; assist with fish population surveys and fish rescues as necessary.
- 12. Ensure adherence to safe work practices and procedures.
- 13. Respond to public inquiries in a courteous manner; provide information within the area of assignment; resolve complaints in an efficient and timely manner.
- 14. Estimate time, materials and equipment required for jobs assigned; requisition materials as required.
- 15. Perform related duties and responsibilities as required.

## **QUALIFICATIONS**

#### **Knowledge of:**

Operations, services and activities of a stream flow monitoring program.

Advanced principles and practices of hydrologic, climatic and geologic science.

Advanced field hydrologic, climatologic and biologic data collection techniques.

Stream sedimentation and erosion processes.

Methods and techniques of land surveying.

Computer equipment and software including ALERT instrumentation, software and data collection platforms.

Basic construction skills including carpentry and cement work.

Intermediate mathematics and statistics.

Basic electronics.

Operational characteristics of power and hand tools.

Water quality sampling protocols.

Global positioning satellite systems for mapping.

Chain of custody forms.

Occupational hazards and standard safety practices.

#### Ability to:

Perform professional-level hydrologic and environmental work studies.

Accurately quantify surface water resources.

Design, locate, install, operate and maintain stream flow gauging stations.

Measure all ranges of stream flow and compute continuous stream flow records.

Independently perform the most difficult stream flow calculations.

Conduct meetings and serve as District representative.

Compile and analyze difficult technical and statistical information and data.

Utilize a computer terminal for data management, data processing and word processing.

Interpret, explain and enforce department policies and procedures.

Operate a vehicle and equipment in a safe and effective manner.

Perform instrument calibration.

Use proper techniques to acquire water quality samples.

Complete chain of custody forms for water quality and biological samples.

Operate GPS equipment to locate wells and other monitoring sites.

Work independently in the absence of supervision.

Understand and follow oral and written instructions.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of work.

Maintain physical condition appropriate to the performance of assigned duties and responsibilities.

<u>Experience and Training Guidelines</u> — Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

# MONTEREY PENINSULA WATER MANAGEMENT DISTRICEXHIBIT 5-A Associate Hydrologist (Continued)

## **Experience**

Five years of increasingly responsible surface water resource management experience.

# **Training**

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

## **License or Certificate:**

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

## **WORKING CONDITIONS**

The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.

## **Environmental Conditions:**

Office and field environment with some travel to attend meetings; work in and around water; exposure to all types of weather and temperature conditions; exposure to poisonous plants, animals, and/or insects; work closely with others and work alone; irregular work hours; exposure to computer screens, atmospheric conditions, and slippery and uneven conditions; working with machinery.

## **Physical Conditions:**

Essential and marginal functions may require maintaining physical condition necessary for moderate to heavy lifting and carrying; walking, standing and sitting for prolonged periods of time; bending, climbing and reaching; operating motorized vehicles and equipment.

#### Vision:

See in the normal visual range with or without correction; specific vision abilities required by this job include close and distance vision, color perception and depth perception.

## **Hearing:**

Hear in the normal audio range with or without correction.