



## MECHANICAL ENGINEER

**EXAM CODE:** 5WRAD  
**EXAM TYPE:** OPEN/CONTINUOUS  
**LOCATION:** STATEWIDE  
**SALARY INFORMATION:** RANGE A \$5540 - \$6606 RANGE B \$6344 - \$7937  
RANGE C \$7337 - \$9180 RANGE D \$8293 - \$10377  
**CLASS & SCHEM CODE:** 3583 HH85

### EQUAL OPPORTUNITY & DRUG FREE STATEMENTS

The State of California is an equal opportunity employer to all, regardless of age, ancestry, color, disability (mental and physical), exercising the right to family care and medical leave, gender, gender expression, gender identity, genetic information, marital status, medical condition, military or veteran status, national origin, political affiliation, race, religious creed, sex (includes pregnancy, childbirth, breastfeeding and related medical conditions), and sexual orientation. It is the objective of the State of California to achieve a drug-free work place. Any applicant for State employment will be expected to behave in accordance with this objective because the use of illegal drugs is inconsistent with the law of the State, the rules governing civil service and the special trust placed in public servants.

### CONTINUOUS TESTING

Cut-off dates will be the last working day of every month.

Testing is considered continuous as Examination Applications (STD 678) will be accepted on a continuous basis and cut-off dates can be set at any time as departmental needs warrant. Applications postmarked or submitted in person after 4:30pm on the cut-off date will be held until the next administration. Dates printed on Mobile Bar Codes, such as the Quick Response (QR) Codes available at the USPS, are not considered Postmark dates for the purpose of determining timely filing of an application. Faxed or emailed applications will not be accepted.

### WHO SHOULD APPLY

Candidates who meet the minimum qualifications of the classification, as stated on this examination bulletin, may apply.

### HOW TO APPLY

It is the personal responsibility of each examination candidate to submit their application materials within the timeframe and in the manner specified on this examination bulletin. Applications must include "to" and "from" dates (month/day/year), time base, and position titles. Applications received without this information will be rejected. Resumes and other attachments will not be accepted in lieu of a completed application. Examination Applications (STD 678) may be submitted to the link below.

1. Download the Examination Application (STD. 678 REV) at <http://jobs.ca.gov/pdf/std678.pdf> and save to computer.
2. Open the Examination Application form saved to computer, complete, and save to computer again.
3. Save a copy of a degree and/or unofficial transcripts to computer.
4. Submit the application and copy of education documents (degree and /or unofficial transcripts) by clicking the link below.

**CLICK [HERE](#) TO APPLY FOR THE MECHANICAL ENGINEER EXAMINATION.**

Examination Applications may be mailed or submitted in person must have an original signature and must be received by the cut-off date to:

**MAILING ADDRESS:**

Department of Water Resources  
P.O. Box 942836  
Sacramento, CA 94236-0001

**OR**

**SUBMIT IN PERSON:**

Department of Water Resources  
1416 9th Street, Room 320  
Sacramento, CA 95814

**DO NOT MAIL OR SUBMIT APPLICATIONS TO THE CALIFORNIA DEPARTMENT OF HUMAN RESOURCES OR DEPARTMENT OF WATER RESOURCES' FIELD OFFICES.**



## IDENTIFICATION REQUIRED

Accepted applicants are required to bring either a photo identification card or two forms of signed identification to each phase of the examination.

## SPECIAL TESTING INFORMATION

If you need special testing arrangements, mark the appropriate box in Question 10 of the Examination Application (STD. 678) and submit the Accommodation Request form (STD. 679) with your application. You will then be contacted to make specific arrangements.

## EXAMINATION INFORMATION

The examination will consist of a written test (if required) weighted pass/fail and a **Training and Experience Evaluation** weighted 100%. In order to obtain a position on the eligible list, a minimum rating of 70% must be attained in each phase of the examination.

## ELIGIBLE LIST INFORMATION

An open list will be established for the Department of Water Resources. Successful competitors will be merged on the list in the order of final score, regardless of date. The successful competitors' list eligibility will expire 24 months after it is established unless the needs of the service and conditions of the list warrant a change in this period. Competitors must then retest to re-establish eligibility.

## TESTING PERIOD

Competitors may test only once during a 12 month period.

## POSITION DESCRIPTION

This is the entry, first working, and journey level of a professional engineering work. Incumbents are assigned duties and responsibilities commensurate with their background, training, and experience. Under the direction, incumbents perform a wide variety of field and office mechanical engineering assignments in connection with mechanical engineering design, drafting, and inspection work; and does other related work.

## REQUIREMENTS FOR ADMITTANCE TO THE EXAMINATION

All applicants must meet the minimum qualifications for this examination by the cut-off date.

**Education:** Graduation from a curriculum in mechanical engineering accredited by the Accreditation Board of Engineering and Technology, or equivalent qualifications. (Registration as a Senior in such a curriculum will admit applicants to the examination, but they must produce evidence of graduation before they will be considered eligible for appointment.) **OR**

Possession of equivalent qualifications may be demonstrated by qualifying in a written examination covering basic mechanical engineering and by graduation from an engineering curriculum which includes the engineering courses normally included in a standard four-year course in mechanical, chemical, or industrial engineering. (Registration as a Senior in such a curriculum will admit applicants to the qualifying written examination, but they must produce evidence of graduation before they will be considered to meet the minimum qualifications.)

Applicants qualifying under an education requirement **MUST** provide a copy of their college diploma and/or transcripts (unofficial are acceptable) by the cut-off date as proof of completion of the required education. Competitors who fail to provide proof of completion of the required education will be eliminated from the examination.

## SCOPE OF EXAMINATION

**Note:** Aids, such as slide rules or pocket calculators will not be allowed in this examination. A written test will be required of candidates who did not graduate from a mechanical engineering curriculum accredited by the Accreditation Board of Engineering and Technology (ABET). To ascertain whether your educational institution is accredited by ABET; please visit their web site at [www.abet.org](http://www.abet.org).

In addition to evaluating the competitors' relative abilities as demonstrated by quality and breadth of experience, emphasis in the examination will be on measuring competitively, relative to job demands, each competitor's:

### Knowledge of:

- 1) Engineering fundamentals and mathematics.
- 2) Designing and preparing plans, layout, specification writing, and estimates for heating, ventilating, instrumentation, pumping, lubrication, piping, air conditioning, refrigeration, plumbing, sanitary, pressure tank, water, water purification and drainage systems, and steam generating plants in common use, including principles of fluid flow, heat transfer, mechanical methods of power and material transmission, thermodynamics, and hydraulics pertaining to the design of water systems, pressure tanks, pumps, sewer systems, and other similar installations.



## State of California, Department of Water Resources ~ Examination Bulletin

- 3) Various codes, safety orders, and regulations governing the design and installation of mechanical equipment, including electric motors.
- 4) Procedures of building construction as it relates to the installation of mechanical equipment.
- 5) Principles of leading the work of others.

### Ability to:

- 1) Prepare plans, specifications, and estimates for heating, ventilating, air-conditioning, refrigeration, plumbing, sanitary, water, water purification and drainage systems, and steam generating plants in common use.
- 2) Do mechanical design work.
- 3) Make correct computations.
- 4) Make neat and accurate lettering, drawings, and technical sketches.
- 5) Specify proper equipment materials.
- 6) Accurately interpret drawings and specifications.
- 7) Determine required sizes for radiators, traps, pipes, and other units.
- 8) Direct or inspect field construction operations or make field inspections and tests of mechanical installations.
- 9) Lead the work of others.
- 10) Check drawings and specifications.
- 11) Establish and maintain cooperative relations with employees and with those contacted in the work and whose work is being inspected.
- 12) Analyze situations accurately, and adopt and take effective action.
- 13) Prepare correspondence and make effective oral and written reports.

## VETERANS PREFERENCE

Assembly Bill 372, signed into law by Governor Brown on August 12, 2013, changes the way the Veterans Preference process is administered by the State of California. Veterans Preference will be awarded as follows, starting on January 1, 2014: 1) Any veteran, widow or widower of a veteran, or spouse of a 100 percent disabled veteran, who achieves a passing score in an entrance examination, shall be ranked in the top rank of the resulting eligibility list. Any veteran who has been dishonorably discharged or released is not eligible for Veteran's Preference. 2) An entrance exam is defined, under law, as any open competitive examination 3) Veterans Preference is not granted once a person achieves permanent civil service status.

The California Department of Human Resources (CalHR) has information on how to apply for Veterans Preference on their website at [www.jobs.ca.gov](http://www.jobs.ca.gov) and on the Application for Veterans Preference form (CalHR 1093). Additional information is also available at the Department of Veterans Affairs website at [www.cdva.ca.gov](http://www.cdva.ca.gov).

## CAREER CREDITS

Career Credits are not granted in open or promotional examinations.

## GENERAL INFORMATION

**The Department of Water Resources** reserves the right to revise the examination plan to better meet the needs of the service if the circumstances under which this examination was planned change. Such revision will be in accordance with civil service laws and rules and all competitors will be notified.

**For an examination with a written feature**, it is the candidate's responsibility to contact the Department of Water Resources seven days prior to the test date if he/she has not received his/her notice. For an examination without a written feature it is the candidate's responsibility to contact the Department of Water Resources at (916) 653-4838, TDD (916) 653-1804, three weeks after the final filing/cut-off date if he/she has not received his/her notice.

**Applications** are available at Department of Water Resources' (DWR) offices, the DWR website:

[www.water.ca.gov/jobs/currentexams.cfm](http://www.water.ca.gov/jobs/currentexams.cfm), local office of the Employment Development Department, and California Human Resources (CalHR) at [www.jobs.ca.gov](http://www.jobs.ca.gov).

**If you meet the requirements** stated on this bulletin, you may take this examination, which is competitive. Possession of the entrance requirement does not assure a place on the eligible list. All candidates who pass will be ranked according to their scores.

**General Qualifications:** Candidates must possess essential personal qualifications including integrity, initiative, dependability, good judgment, and ability to work cooperatively with others; and a state of health consistent with the ability to perform the assigned duties of the classification.

**Examination Locations:** When a written or performance test is part of the examination, it will be given in such places in California as the number of candidates and conditions warrant. Ordinarily, qualifications appraisal interviews are scheduled in Sacramento and Los Angeles. However, locations of interviews may be limited or extended as conditions warrant.

**If a candidate's notice** of oral interview fails to reach him/her prior to the day of the interview due to a verified postal error, he/she will be rescheduled upon written request.



## *State of California, Department of Water Resources ~ Examination Bulletin*

**Eligible Lists:** Eligible lists established by competitive examination, regardless of date, must be used in the following order: 1) subdivisional promotional, 2) departmental promotional, 3) multidepartmental promotional, 4) servicewide promotional, 5) departmental open, 6) open eligible list. When there are two lists of the same kind, the older must be used first. Eligible lists will expire in one to four years unless otherwise stated on this bulletin. In the case of continuous testing examinations, names are merged into the appropriate lists in order of final test scores (except as modified by veterans preference credits) regardless of the date of the test, and the resulting eligible lists will be used only to fill vacancies in the area shown on the bulletin.

**Promotional Examinations Only:** Competition is limited to employees who have a permanent civil service appointment. Under certain circumstances other employees may be allowed to compete under provisions of Rules 234, 235, 235.2. State Personnel Board Rules 233, 234, 235, 235.2 and 237 contain provisions regarding civil service status and eligibility for promotional examinations. These rules may be reviewed at departmental personnel offices or at the Information Counter of State Personnel Board offices.

**TDD** is Telecommunications Device for the Deaf and is reachable only from phones equipped with a TDD Device. **California Relay Telephone Service** for the Deaf or hearing impaired: From TDD phones: 1-800-735-2929; From Voice phones: 1-800-735-2922.

### **CONTACT INFORMATION**

For information regarding this examination, please contact Selection Services at (916) 653-4838 and ask to be connected to the exam analyst.