### Engineer, Water Resources

**Agency Code:** 5699  **Class Code:** 3137  **Exam Code:** 4PBD2

**Department(s):** Department of Water Resources  
**Opening Date:** 9/10/2009 8:30:00 AM  
**Final Filing Date:** Continuous  
**Type of Examination:** Departmental Open  

<table>
<thead>
<tr>
<th>Salary:</th>
<th>MONTHLY-RANGED-SALARY - $5,098.00 to $9,548.00</th>
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</thead>
</table>
| Tenure/Time-base: | Permanent Full-time  
| | Permanent Part-time  
| | Permanent Intermittent  
| | Limited Term Full-time  
| | Limited Term Part-Time  
| | Limited Term Intermittent |

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**Tenure/Time-base:** Permanent Full-time, Permanent Part-time, Permanent Intermittent, Limited Term Full-time, Limited Term Part-Time, Limited Term Intermittent  

**Exam Type:** State-wide

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### EEO

An equal opportunity employer to all regardless of race, color, creed, national origin, ancestry, sex, marital status, disability, religious or political affiliation, age or sexual orientation.

### DRUG FREE STATEMENT

It is an objective of the state of California to achieve a drug-free state 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.

### WHO SHOULD APPLY?

Candidates who meet the minimum qualifications as stated below may apply for this examination at any time. Once you have taken the examination, you may not reapply for six (6) months. All applicants must meet the education and/or experience requirements as stated on this examination announcement.

### FILING INSTRUCTIONS

**Where to Apply:**

Click on the Exam link at the bottom of this bulletin.
SPECIAL TESTING ARRANGEMENTS

If you have a disability and need special assistance or special testing arrangements, contact the State Personnel Board, Examinations Services Program at (866) 844-8671, TTY (916) 654-6336, or via the California Relay Service for the Deaf or Hard of Hearing at (800) 735-2929 from TTY Phones, or at (800) 735-2922 from voice phones.

REQUIRED IDENTIFICATION

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

SALARY INFORMATION

Range A: $5,098.00 - $6,078.00
Range B: $5,837.00 - $7,303.00
Range C: $6,751.00 - $8,447.00
Range D: $7,631.00 - $9,548.00

ALTERNATE RANGE CRITERIA

Range A. This range shall apply to incumbents who do not meet the criteria for Range B, Range C, or Range D.

Range B. This range shall apply to incumbents who have satisfactorily completed either:

1. In State service, satisfactorily completed one year of experience performing duties equivalent to an Engineer, Water Resources, Range A. OR
2. Two years of professional civil engineering experience outside State service. AND A bachelor's degree in a civil engineering curriculum accredited by the Accreditation Board of Engineering Technology. (Possession of a valid certificate as an Engineer-in-Training issued by the State Board of Registration for Professional Engineers and Land Surveyors or issued by another jurisdiction and accepted by the State Board in lieu of the first division of the registration examination as a professional engineer may be substituted for the required education.) OR
3. Four years of professional civil engineering experience outside State service. AND A bachelor's or graduate degree in a civil engineering curriculum which is not accredited by the Accreditation Board of Engineering Technology. OR
4. A master's or doctorate degree in a civil engineering curriculum from a college or university that has a baccalaureate degree program in a civil engineering curriculum which is accredited by the Accreditation Board of Engineering Technology.

Range C. This range shall apply to persons who have either:

1. In State service, satisfactorily completed two years of experience performing duties equivalent to an Engineer, Water Resources, Range B. OR
2. Three years of professional civil engineering experience outside of State service. AND A bachelor's degree in a civil engineering curriculum accredited by the Accreditation Board of Engineering Technology. (Possession of a valid certificate as an Engineer-in-Training issued by the State Board of Registration for Professional Engineers and Land Surveyors or issued by another jurisdiction and accepted by the State Board in lieu of the first division of the registration
examination as a professional engineer may be substituted for the required education.) OR

3. Five years of professional civil engineering experience outside State service. AND A bachelor's or graduate degree in a civil engineering curriculum which is not accredited by the Accreditation Board of Engineering Technology. OR

4. Two years of professional civil engineering experience. AND A master's or doctorate degree in a civil engineering curriculum from a college or university that has a baccalaureate degree program in a civil engineering curriculum which is accredited by the Accreditation Board of Engineering Technology.

**Range D.** This range shall apply to persons who:

1. Possess a valid certificate of registration as a civil engineer issued by the State Board of Registration for Professional Engineers and Land Surveyors.

**Note:** "Professional civil engineering experience" for the purpose of Alternate Range Criteria 351 is defined as actual work experience gained after graduation from a four-year college or university with a degree in a civil engineering curriculum or actual work experience gained after graduation from a four-year college or university with a degree in a civil engineering curriculum or actual work experience gained after possession of a valid certificate as an Engineer-in-Training issued by the State Board of Registration for Professional Engineers and Land Surveyors or issued by another jurisdiction and accepted by the State Board in lieu of the first division of the registration examination as a professional engineer.

### ELIGIBLE LIST INFORMATION

Names of successful competitors are merged onto the list, in order of final scores, regardless of date. Eligibility expires after 12 months.

### REQUIREMENTS FOR ADMITTANCE TO THE EXAMINATION

**NOTE:** All applicants must meet the education and/or experience requirements as stated on this examination announcement.

### MINIMUM QUALIFICATIONS

**EITHER I**

**Education:** Graduation from a curriculum in civil engineering accredited by the Accreditation Board for Engineering Technology. (Registration as a "senior" in such a curriculum will admit an applicant to the competition, but he/she must produce evidence of graduation before he/she will be considered eligible for appointment.)

**OR II**

**Education:** Graduation from an engineering curriculum which includes the basic engineering courses normally covered in a standard four-year course, and by qualifying in a written examination covering basic civil engineering. (Registration as a "senior" in such a curriculum will admit an applicant to the qualifying examination, but he/she must produce evidence of graduation before he/she will be considered eligible for appointment.)
POSITION DESCRIPTION

This is the entry, first working, and journey level of professional engineering work in the Department of Water Resources. At the journey level and with registration, incumbents may be in a responsible charge capacity. Under the direction of a registered engineer, incumbents perform a wide variety of professional engineering work in either an office, field, or laboratory setting in any phase of the State water resources program. As incumbents progress in experience, they will be assigned more difficult work and may function as a lead person over the activities of various engineering and technical personnel; and do other related work. Incumbents assist in engineering work in connection with projects relating to land, hydraulics, roads, bridges, buildings, wharves, piers, dams, levees, sanitary facilities, and similar works; prepare designs, plans, specifications, estimates, and reports for various types of construction projects including bridges, roads, dams, aqueducts, levees, ditches, retaining walls, and similar structures; revise or prepare maps, plans, charts, and diagrams; act as a member of a survey party; keep survey and construction notes; make engineering calculations in connection with field or office work; prepare simple design work and draft working plans and detail drawings and tracings and produce drawings using CADD; oversee the work of several office and field assistants engaged in conducting studies of water supply, water quality, snow conditions, flood control, groundwater analysis, and irrigation surveys; act as inspector on a variety of construction projects such as road construction and structural steel, concrete, and timber construction; inspect structures under construction; make hydrographic and irrigation investigations; inspect, make field or laboratory tests, or take samples for laboratory analysis on materials being used for construction projects; make field inspections of existing structures to determine extent of damage, deterioration, or defects; assemble data and make reports from field investigations; may assist in the development or maintenance of computer programs; may perform engineering calculations and/or prepare other documents using a personal computer or a work station; assist in preparing environmental impact analyses, environmental impact reports, and environmental impact studies; prepare memoranda and reports; may use underwater diving equipment in connection with underwater quality control investigation.

Positions exist in various locations throughout the State with the Department of Water Resources.

EXAMINATION INFORMATION

Testing periods are from January 1 – June 30; July 1 – December 31. Candidates may be tested only once during a testing period.

NO INTERVIEWS WILL BE CONDUCTED. This examination will consist of a written test (if required) weighted pass/fail and a Training and Experience Readiness Evaluation weighted 100%. In order to obtain a position on the eligible list, a minimum rating of 70.00% must be attained in each phase of the examination.

SCOPE OF EXAMINATION

Written Test – Weighted Pass/Fail (if required)
Knowledge of:

1. Civil Engineering Fundamentals.

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 civil 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 website at www.abet.org.
If you have any questions concerning how to take the written test, please contact Irma Peralez at the Department of Water Resources, P.O. Box 942836, Sacramento, CA 94236-0001, (916) 653-3910.

**WRITTEN TEST WAIVER**

The written test will be waived for applicants who are “seniors” in or have graduated from a curriculum in civil engineering accredited by the Accreditation Board for Engineering and Technology. Individuals who have passed the Engineer, Water Resources test within the past 12 months will not be scheduled for the written examination. Also, individuals possessing an Engineer-in-Training Certificate will not be required to take the written examination.

It is anticipated that once a passing score is achieved on the Engineer, Water Resources written test, it will be good for one year (or longer if considered to be in the best interest of State service.) Success in this test will permit competition in future examinations for this class during the period without retaking the test.

**Online Training and Experience Readiness Evaluation – Weighted 100%**

**A. Knowledge of:**

1. Soil mechanics, hydrology and hydraulics, stress analysis, design of simple structures and mechanics.
2. Methods and equipment of engineering construction.
3. Engineering economics.
5. Environmental principles as they pertain to engineering practices.

**B. Ability to:**

Prepare clear and concise computations and engineering notes.

1. Use computers and CADD.
2. Prepare clear and concise reports.
3. Prepare detailed plans and specifications.
4. Inspect construction projects.
5. Analyze situations accurately and take effective action.
6. Maintain friendly relations with those contacted in the course of work.
7. Communicate effectively at a level required for successful job performance.

**VETERANS PREFERENCE**

Veterans’ Preference credits will be added to the final score of all competitors who are successful in this examination and who qualify for, and have requested, these points through the State Personnel Board. Due to changes in the law, effective January 1, 1996, veterans who have achieved permanent civil service status are not eligible to receive veterans preference credits.

**CAREER CREDITS**

Career Credits will not be added to the final score of this examination.
Competitors will be required to provide proof of graduation before eligible for appointment. The following are acceptable as proof of graduation.

1. A copy of a Bachelor’s degree diploma (specifying the major);
2. Copies of transcripts indicating the award of a Bachelor’s degree (with the specific major); OR
3. A letter from a recognized college or university that states the candidate has been awarded a Bachelor’s degree (with a specific major).
4.

If you have any question concerning this announcement or the process, please contact:

State Personnel Board
801 Capitol Mall
Sacramento, CA 95814
(866) 844-8671
TDD: (916) 654-6336
California Relay Service: 1-800-735-2929 (TDD)
1-800-735-2922 (Voice)

Examination Locations: When a written test is part of the examination, it will be given in such places in California as the number of candidates and conditions warrant. However, locations of interviews or performance evaluations may be limited or extended as conditions warrant.

Applications are available at www.jobs.ca.gov, State Personnel Board offices, local offices of the Employment Development Department and the testing department on this job bulletin.

If you meet the requirements stated on this examination bulletin, you may take this examination, which is competitive. Possession of the entrance requirements does not assure a place on the eligible list. Your performance in the examination described on this bulletin will be rated against a predetermined job-related rating, and all candidates who pass will be ranked according to their scores.

The State Personnel Board and/or 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 law and rules and all competitors will be notified.

Candidates needing special testing arrangements due to a disability must mark the appropriate box on the application and/or contact the testing department.

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 class. A medical examination may be required. In open examinations, investigation may be made of employment records and personal history and fingerprinting may be required.
Eligible Lists: Eligible lists established by competitive examination, regardless of date, must be used in the following order: 1) sub-divisional promotional, 2) departmental promotional, 3) multi-department all promotional, 4) service-wide promotional, 5) departmental open, 6) open. 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 the bulletin.

Veterans’ Preference Points: California Law (Government Code 18971-18978) allows the granting of Veterans’ Preference Points in open entrance and open, non-promotional entrance examinations. Veterans’ Preference Points will be added to the final score of all competitors who are successful in these types of examinations, and who qualify for, and have requested by mail, these points. In open (only) entrance examinations, Veterans’ Preference Points are granted as follows: 10 points for veterans, widows and widowers of veterans, and spouses of 100% disabled veterans (5 points for widows, widowers, and spouses if the veteran was in the National Guard); and 15 points for disabled veterans. In open, non-promotional entrance examinations, Veterans’ Preference Points are granted as follows: 10 points for veterans, and 15 points for disabled veterans. Employees who have achieved permanent State civil service status are not eligible to receive Veterans’ Preference Points. “Permanent State civil service status” means the status of an employee who is lawfully retained in his/her position after completion of the applicable probationary period. This includes permanent intermittent, part-time, and full-time appointments. In addition, individuals who at any time achieved permanent State civil service status and subsequently resigned, or were dismissed from State civil service are not eligible to receive Veterans’ Preference Points. Veteran status is verified by the State Personnel Board (SPB). Directions to apply for Veterans’ Preference Points are on the Veterans’ Preference Application (Std. Form 1093), which is available at wwwspb.ca.gov or from the State Personnel Board, 801 Capitol Mall, Sacramento, CA 95814, and the Department of Veterans Affairs.

TTY is Telecommunications Device for the Deaf and is reachable only from phones equipped with a TTY Device.

Taking the Exam

When you click the link below, you will be directed to the Training and Experience Evaluation. At the end of the Training and Experience Evaluation, once you click “Score My Exam,” it will be instantly scored.

Click here to go to the Internet exam for Engineer