

Per California Code of Regulations, title 2, section 548.5, the following information will be posted to CalHR's Career Executive Assignment Action Proposals website for 30 calendar days when departments propose new CEA concepts or major revisions to existing CEA concepts. Presence of the department-submitted CEA Action Proposal information on CalHR's website does not indicate CalHR support for the proposal.

A. GENERAL INFORMATION

1. Date

12/29/2015

2. Department

Department of Conservation

3. Organizational Placement (Division/Branch/Office Name)

Director's Office

4. CEA Position Title

Chief Scientific Advisor, Department of Conservation

5. Summary of proposed position description and how it relates to the program's mission or purpose. (2-3 sentences)

This position is responsible for providing executive-level scientific counsel to the Department Director, Chief Deputy Director, and Division Directors on the following: development of policy with respect to the implementation of conservation of natural resources; ensuring production of oil, gas, and geothermal resources occurs in a manner that minimizes impacts to health, safety and the environment; identification of mineral and agriculture land resources; reclamation of mined land; identification of geologic and seismic hazards; and, data gathering techniques and methods of evaluation of environmental impacts. This position ensures that the Director has a wide-range of scientific input in making decisions that affect land and mineral resource utilization and conservation, as well as decisions that protect public health, safety and the environment.

6. Reports to: (Class Title/Level)

Director, Department of Conservation

7. Relationship with Department Director (Select one)

- Member of department's Executive Management Team, and has frequent contact with director on a wide range of department-wide issues.
- Not a member of department's Executive Management Team but has frequent contact with the Executive Management Team on policy issues.

(Explain):

8. Organizational Level (Select one)

- 1st
- 2nd
- 3rd
- 4th
- 5th (mega departments only - 17,001+ allocated positions)

B. SUMMARY OF REQUEST

9. What are the duties and responsibilities of the CEA position? Be specific and provide examples.

The CEA position operates as the Chief Scientific Advisor to the Director of the Department of Conservation (Department). The incumbent has the responsibility of gathering data and information of a scientific nature, analyzing the material, and making reasoned recommendations to the Director in order to better serve the public. The CEA is an interdisciplinary Assistant Director who participates in planning, project development, and preparing scientific and environmental analysis of regulated activities. The CEA applies his/her relevant scientific background to work with Department experts by assisting in the identification of environmental impacts on new regulatory or legislative actions, and assists in the formulation measures to mitigate impacts. The position has the authority to direct resources to investigate targeted problem areas.

The work of the Department of Conservation's Directorate requires that the Director oversee a variety of highly-technical, scientific programs, including reservoir engineering, hydrology, underground injection, hydraulic fracturing, mineral resource management, agriculture conservation, and other scientific and technical specialties. As the Director, no one person can hope to maintain technical fluency in such a broad array of fields, which necessitates the establishment of an executive-level scientific advisor. For instance:

The Department's California Geological Survey (CGS) increases public safety, reduces property loss, and enhances the economic well-being of California through knowledge of the State's diverse geological environment and natural resources. The CGS produces detailed, state-of-the-science geological maps that provide the bases for engineering and development of technical reviews and studies, and other public policy decision-making, regulatory, and informative products.

The Department's Division of Land Resource Protection (DLRP) provides information, maps, funding and technical assistance to local governments, consultants, Resource Conservation Districts (RCD) and non-profit organizations statewide with the goal of conserving the state's agricultural and natural resources. The Division awards conservation grants and easements in order to mitigate greenhouse gas emissions and adequately determines the amount mitigated by the conservation of land.

The Department's Office of Mine Reclamation (OMR) was created to provide a measure of oversight for local governments as they administer the Surface Mining and Reclamation Act (SMARA) within their respective jurisdictions. The OMR may provide comments to lead agencies on a mining operation's reclamation plan and financial assurance and may initiate actions that encourage SMARA compliance. The Engineering Geology unit coordinates with the Engineering Services unit to determine if surface mining operations have been reclaimed in substantial accordance with applicable laws, rules, and regulations.

The Department's Division of Oil, Gas and Geothermal Resources (DOGGR) oversees the drilling, operation, maintenance, and plugging and abandonment of oil, natural gas, and geothermal wells. The regulatory program emphasizes the development of oil, natural gas, and geothermal resources in the state through sound engineering practices that protect the environment, prevent pollution, and ensure public safety.

B. SUMMARY OF REQUEST (continued)

10. How critical is the program's mission or purpose to the department's mission as a whole? Include a description of the degree to which the program is critical to the department's mission.

- Program is directly related to department's primary mission and is critical to achieving the department's goals.
- Program is indirectly related to department's primary mission.
- Program plays a supporting role in achieving department's mission (i.e., budget, personnel, other admin functions).

Description: The Department is a science based department that relies heavily on scientific research and data. Part of the the Department's mission is to preserve the State's natural resources, ensure the safe exploration of those resources, and protect the health and safety of the citizens during the exploration of those resources. The Advisor will provide executive level expertise for all Departmental programs. The Department must have a strong scientific understanding of oil and gas, mining, mineral research and protection, seismic study and preparedness, the conservation and preservation of land, and the mitigation of greenhouse emissions in order to fulfill its mission.

B. SUMMARY OF REQUEST (continued)

11. Describe what has changed that makes this request necessary. Explain how the change justifies the current request. Be specific and provide examples.

Founded in 1965, the California Department of Conservation (Department) is a department within the government of California, reporting to the California Natural Resources Agency. The Department provides services and information that promote environmental health, economic vitality, informed land-use decisions, and sound management of our state's natural resources. With a team of scientists and other dedicated professionals, the Department administers a variety of programs vital to California's public safety, environment, and economy. The services the Department provides are designed to balance today's needs with tomorrow's obligations by fostering the wise use and conservation of energy, land, and mineral resources. The Department fulfills this mission through four key regulatory divisions: (1) California Geological Survey, (2) Division of Land Resources Protection, (3) Office of Mine Reclamation, and 4) Division of Oil, Gas, and Geothermal Resources. It regulates oil, natural gas and geothermal wells; studies and maps earthquakes and other geologic phenomena; maps and classifies areas containing mineral deposits; ensures reclamation of land used for mining; and administers agricultural and open-space land conservation programs.

Scientists from the Department gather data on earthquakes and map earthquake faults and related hazards. This information is used to erect buildings and structures that are better able to withstand earthquakes, minimizing loss of life and property damage. The Department administers or supports a number of programs designed to promote orderly growth in coordination with agricultural endeavors and the mitigation of greenhouse gas. Additionally, balancing the regulation of mineral production is important to California with as well as protecting the environment. The Department ensures the safe exploration and development of energy resources. It oversees the construction, operation, and closure of oil, gas, and geothermal wells, an important step in guarding drinking and agricultural waters against pollution.

As the Department has evolved, our programs have become more science based. For example, the oil and gas program does not simply permit wells but now monitors the chemicals used in underground injection and hydraulic fracturing. This requires a strong science based regulatory program. It is anticipated that as the oil and gas industry evolves, and new extraction techniques are developed, that even more science based determinations must be made to protect the health and safety of the citizens of California. Similarly, the extraction of minerals in mining has evolved requiring a more science based approach to regulating the industry. Our agricultural conservation program now aims to measure the reduction of greenhouse gas achieved by creating long-term conservation easements. Our mineral mapping and fault mapping programs have become much more detailed as the science behind these programs has evolved and advanced. The protection of valuable mineral resources is vital to the long-term growth of the State. The analysis of fault zone mapping is vital to development and preparation for earthquake events. It is vital that the Department has the scientific expertise on board to provide the needed expertise and advice for future policy decisions.

The CEA position operates as the Chief Scientific Advisor and reports directly to the Director. The position participates in planning, organizing, and directing the scientific research work of the Department. The Chief Scientific Advisor prepares and recommends to the Director policy governing the enforcement of laws within the jurisdiction of the Department, with regards to the interplay of Department jurisdiction with similar authorities held by local, state, and federal government agencies. Current high-level policy matters in the Chief's realm are determining and recommending any policy, staffing, funding, and program changes. The Chief is responsible for reaching and maintaining a high-level of scientific expertise, performing research and training in coordination with staff, and working with outside entities to further the scientific goals of the Department and the State.

C. ROLE IN POLICY INFLUENCE

12. Provide 3-5 specific examples of policy areas over which the CEA position will be the principle policy maker. Each example should cite a policy that would have an identifiable impact. Include a description of the statewide impact of the assigned program.

As the Department's Chief Scientific Advisor, the CEA will have principle responsibility for ensuring the application of high standards of scientific inquiry and evidence in the Department's interpretation and application of regulations and statutes. The Department regulates oil and gas production and mine reclamation for the state of California. Oil and gas is a \$34 billion annual industry with nearly 100,000 active or idle wells subject to Department oversight. Mining is a \$2.85 billion annual industry with over 1,000 active mines and over 45,000 historic, abandoned mines. The regulation of these industries cannot be based upon anecdotes or emotional appeals; it must be founded on sound science and real evidence of risk, which regulation seeks to minimize or eliminate. The CEA will ensure that the foci of the Department's regulation are appropriately targeted and that those foci change as our understanding of the relative risks change with further examination and experience.

Data Analysis – The Department collects vast amount of data with each oil and gas well permitted and operated, and with each mine operated and eventually reclaimed. Yet, existing Department programs are built around delivery of regulatory or local assistance service. Those existing programs do not have the ability in either workload capacity or in the capacity to interpret data for policy recommendation or to make any significant use of the vast amounts of data collected. The CEA will lead the identification of new of lines research; made possible by the myriad of data sources inside the Department and available from outside the Department.

New Research – The Department is one of the principal land resource specialists inside the Natural Resources Agency. Recent experience with expenditures of greenhouse gas (GHG), cap-and-trade revenue has revealed that there is an impediment to more complete application of cap-and-trade revenue to land use management. There are land use management practices that can contribute to GHG reduction. However, without a metric for measuring the amount of GHG sequestered or prevented by those land use management practices, it is difficult to expend cap-and-trade revenues for promoting those practices. The CEA will be the Department's lead for investigations into how land management practices can achieve that goal in a measurable manner.

Department-level science policy consistency – The Department has many earth science disciplines woven throughout its programs. Geologists mesh with engineers working alongside botanists and biologists. All of these disciplines and more, apply their expertise to regulatory and local assistance activities. However, the absence of a Department-level coordinator for application of scientific principles and conduct of relevant scientific research results in inconsistent program application. Some Department divisions regularly and readily encourage scientific staff to remain relevant in their field of expertise by conducting research, teaching, or participation in seminars and/or training. Other divisions rely upon whatever exposure to emerging technologies and practices as those technologies and practices appear in common use, leaving staff often several years less sophisticated than the entities Department staff are expected to regulate. The CEA will be principle the coordinator of appropriate scientific training opportunities, with the aim of maintaining all Department division's level of scientific excellence.

C. ROLE IN POLICY INFLUENCE (continued)

13. What is the CEA position's scope and nature of decision-making authority?

The Chief Scientific Advisor is an executive level decision maker and will report to the Director and provide executive level advice on all science based work within the Department. The Advisor will work directly with the California State Geologist, the State Oil and Gas Supervisor, the Governor's appointee over the Office of Mine Reclamation, and the Division Chief over the Division of Land Resources Protection. The Advisor will coordinate with these individuals to provide advice and direction to the Directorate on all scientific based areas. The scope of duties will include assisting in the directing of the science based research and review of: reclamation of mined lands for a beneficial end use including proper revegetation plans, avoidance of toxic runoff and other hazardous containment; conservation and preservation of valuable agriculture lands; identification of seismic faults; identification, preservation, and exploration of mineral resources; exploration of oil and gas including aquifer protection. The Advisor will provide the necessary leadership in the Department to advance the scientific research and review of future projects. This leadership will also lead to the constructive exchange with outside sources such as major universities and science based organizations to assist the Department's Directorate in making informed decisions. The Advisor will perform research on the latest scientific research and provide training to Department personnel on the research.

14. Will the CEA position be developing and implementing new policy, or interpreting and implementing existing policy? How?

The proposed CEA will be assisting and directing the development and implementation of new policy and the interpretation of existing policy. For new policies, the CEA will work closely with the programs to identify scientific advances or changes that may necessitate the development and implementation of new policies to meet the new scientific norms. As science and technology evolves, the need for new policies will grow within the Department. For instance, the use of hydraulic fracturing required new policies and new regulations which would require scientific expertise in order to properly develop and implement these changes. In addition, new scientific research may require the modification of current policies within the Department. As science changes, policies must be updated to adjust to the most recent scientific research. It is of the utmost importance that the Department have available a high level advisor to perform the necessary research to keep DOC on the cutting edge.