STATE OF CALIFORNIA
Budget Change Proposal - Cover Sheet
DF-46 (REV 02/15)

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Business Unit</th>
<th>Department</th>
<th>Priority No.</th>
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<tbody>
<tr>
<td>2016-17</td>
<td>3960</td>
<td>Toxic Substances Control</td>
<td>16</td>
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<table>
<thead>
<tr>
<th>Budget Request Name</th>
<th>Program</th>
<th>Subprogram</th>
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<tbody>
<tr>
<td>3960-116-BCP-BR-2016-GB</td>
<td>3630 Safer Consumer Products</td>
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Budget Request Description
Biomonitoring California

Budget Request Summary
The Department of Toxic Substances Control (DTSC) requests to extend for two additional years, $350,000 from the Toxic Substances Control Account to provide consistency and stability in the Biomonitoring California Program and support 2.0 limited-term positions established in fiscal year 2014-15.

<table>
<thead>
<tr>
<th>Requires Legislation</th>
<th>Code Section(s) to be Added/Amended/Repealed</th>
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<tbody>
<tr>
<td>☐ Yes  ☑ No</td>
<td></td>
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</tbody>
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Does this BCP contain information technology (IT) components?  ☐ Yes  ☑ No

*If yes, departmental Chief Information Officer must sign.*

For IT requests, specify the date a Special Project Report (SPR) or Feasibility Study Report (FSR) was approved by the Department of Technology, or previously by the Department of Finance.

☐ FSR  ☐ SPR

Project No. Date:  

If proposal affects another department, does other department concur with proposal?  ☐ Yes  ☐ No

Attach comments of affected department, signed and dated by the department director or designee.

Prepared By Date

Reviewed By Date

Department Director Date

Agency Secretary Date

Department of Finance Use Only

Additional Review: ☐ Capital Outlay ☐ ITCU ☐ FSCU ☐ OSAE ☐ CALSTARS ☐ Dept. of Technology

BCP Type:  ☐ Policy ☐ Workload Budget per Government Code 13308.05

PPBA Date submitted to the Legislature
A. Budget Request Summary
The Department of Toxic Substances Control (DTSC) requests to extend for two additional years, $350,000 from the Toxic Substances Control Account to provide consistency and stability in the Biomonitoring California Program and support 2.0 limited-term positions established in fiscal year 2014-15.

B. Background/History
Biomonitoring California was established through legislation (Senate Bill 1379, Perata and Ortiz, Chapter 599, Statutes of 2006, codified in Health & Safety Code D Sections 105440 et seq). The Program is a collaborative effort involving the California Department of Public Health (CDPH) as the designated lead, the Office of Environmental Health Hazard Assessment (OEHHA), and the Department of Toxic Substances Control. It receives technical advice and peer review from a Scientific Guidance Panel and input from the public. The content of this Budget Change Proposal (BCP) reflects only programmatic needs of DTSC.

Biomonitoring California’s principal mandates are to: (1) measure and report levels of specific environmental chemicals in blood and urine samples from a representative sample of Californians, (2) conduct community-based biomonitoring studies, and (3) help assess the effectiveness of public health and environmental programs in reducing chemical exposures. Biomonitoring provides unique information on the extent to which people are exposed to a variety of environmental chemicals and on how such exposures may be influenced by factors such as age, gender, ethnicity, diet, occupation, residential location, and use of specific consumer products. This information is essential to inform policy decisions in public health and environmental protection (e.g., the reformulation and enhanced safety of consumer products under the Safer Consumer Product Regulations implemented by DTSC).

Biomonitoring California is funded through five special funds including TSCA, the Air Pollution Control Fund (APCF), the Department of Pesticide Registration Fund (DRPF), the Childhood Lead Poisoning Prevention Fund (CLPPF), and the Birth Defects Monitoring Fund (BDMF). DTSC has 2.0 permanent positions for Biomonitoring California; 2.0 positions with two-year limited term funding established in a FY 2015-16 BCP expiring June 30, 2017; and 2.0 two-year, limited-term positions established in a Fiscal Year (FY) 2014-15 BCP which expire on June 30, 2016.

<table>
<thead>
<tr>
<th>Resource History</th>
<th>(Dollars in thousands)</th>
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<tr>
<td>Program Budget</td>
<td>PY - 3</td>
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<tr>
<td>Authorized Expenditures</td>
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<td>Actual Expenditures</td>
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<td>Revenues</td>
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<tr>
<td>Authorized Positions</td>
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<td>Filled Positions</td>
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</tr>
<tr>
<td>Vacancies</td>
<td>1.0</td>
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</table>

Programmatic History and Accomplishments: Biomonitoring California has undertaken a number of collaborative projects with University of California faculty (Berkeley, San Francisco, Davis and Irvine), Kaiser Permanente, and other investigators. Listed below are some key achievements Biomonitoring California has made over the last few years by building partnerships and leveraging the State resources:

- Tested urine and blood samples for up to 140 different chemicals from almost 5,000 Californians. This information is the beginning of a massive database that will allow the Program to assess exposures to Californians and to protect their health.
- Recruited pregnant women at San Francisco General Hospital and found many toxic chemicals in both mothers and infants. Many chemicals were at higher levels in the infants compared to their mothers. These discoveries will improve prenatal care advice across the state.
Analysis of Problem

- Demonstrated the drop of polybrominated diphenyl ethers (PBDE) in the blood of two other groups of pregnant women from San Francisco General Hospital as a result of the phase out of these flame retardants.
- Tested Orange County firefighters for over 75 chemicals in their blood or urine. High levels of PBDE flame retardants were found in all of the firefighters, particularly those who worked on front-line activities. Use of personal protective gear and regular cleaning were associated with lower flame retardant levels, reinforcing health and safety guidelines. We also found high levels of benzophenone-3, an endocrine disrupting chemical used as a sunscreen in some lotions and cosmetics and as a UV stabilizer in plastics, up to five times higher than the levels reported for the general population. Such findings will be useful in the implementation of DTSC’s Safer Consumer Products regulations.
- In collaboration with Kaiser Permanente, recruited 450 Central Valley residents. Upon completion of chemical analyses of blood or urine, we will compare biomonitoring results with detailed participant health information.
- In collaboration with the Cancer Prevention Institute of California, the lab is in the process of analyzing blood from over 2,500 female teachers across the state. Chemicals in blood will be examined as risk factors for breast cancer. Preliminary data show an association between chemicals in the blood with those in drinking water (PFCs); and with residential proximity to hazardous waste sites (PBDEs).
- Biomonitoring California is the only such program that offers testing results to study participants. We found that the vast majority of participants ask to receive their results. Informational packets with test results, fact sheets, and suggestions to reduce exposures are mailed to individuals who requested their individual results.
- The Biomonitoring California website (www.biomonitoring.ca.gov) was recently redesigned and improved with new features and content; the new site presents biomonitoring study results to the public and researchers. Close to 1,500 active subscribers regularly receive Program email updates via the Biomonitoring California listserv.

C. State Level Considerations

Biomonitoring, as a tool for measuring and tracking exposure to toxic chemicals, has broad statewide relevance for public health. Biomonitoring California data can be used as an early warning system for exposure to toxic chemicals and as a means to target surveillance for potential adverse health effects. Furthermore, information collected by the Program can help inform DTSC’s Safer Consumer Products regulations and Proposition 65 implementation, as well as CDPH’s Safe Cosmetics Program. Results from the Program can also be used to assess the effectiveness of public health efforts and regulatory programs to decrease exposures to specific chemicals. For example, regulatory programs can utilize biomonitoring data (as was done recently with dropping levels of PBDEs) to demonstrate that product restrictions or other actions actually result in lower exposures, with consequent improved health outcomes. In addition, the Program’s laboratory resources can be mobilized, as needed, to augment the State’s emergency response to chemical releases.

The recently acquired Time-of-Flight (TOF) instrumentation provides the Program and DTSC with first time ever capabilities to measure many previously unknown and undetected chemicals in biological samples. Coupled with CalEPA’s CalEnviroScreen (a tool to identify disadvantaged communities with respect to their pollution burden), results from the TOF will help prioritize work for optimal use of resources. These new capabilities will greatly augment the State’s ability to investigate environmental exposures and potential links with disease in all Californians, including disadvantaged communities.

Biomonitoring California has high level of external support from advocates, academia, and other environmental health scientists who have supported past proposals for positions and funding. There is a strong external desire to maintain the program in light of recent federal funding reductions. This proposal is consistent with mandated activities under Senate Bill 1379 (2006, Perata) and included in Health & Safety Code Section 105440 et seq.
D. **Justification**

This proposal requests to extend for two years, two (2.0) limited term positions that will expire June 30, 2016. These two (2.0) positions, with improved automation and sample throughput, will continue to analyze specific toxic chemical contaminants in biological samples from ongoing population-based investigations, allowing timely dissemination of results and science-based decision making. In addition, they will establish methodologies, operate and maintain the TOF, generate and interpret data, and set the direction for the investigation of unknown threats.

Biomonitoring is an emerging field with rapidly changing laboratory technologies. With both state and federal CDC funding, DTSC has purchased several such instruments to test for different toxic chemicals in samples from different populations. The instruments have a useful life of approximately seven years and, therefore, need to be replaced on a regular cycle. To ensure that the laboratory is operating with the appropriate instrumentation, this BCP requests $70,000 for the purchase of new equipment to replace biomonitoring equipment as it ages. No facility modifications will be needed to house this equipment in the laboratory.

Sophisticated laboratory equipment needs to be serviced and maintained in order to continue functioning within specifications. Each manufacturer provides on-site service, maintenance and repair of this equipment under preventive maintenance contracts. $10,000 is requested for preventive maintenance services.

E. **Outcomes and Accountability**

The CDC Cooperative Agreement requires Biomonitoring California to evaluate program functions and efficiency as part of the scope of work. Biomonitoring California is required to produce a Legislative Report biennially, including a progress report and a summary of results for ongoing work. The legislatively-mandated Scientific Guidance Panel will continue to provide scientific peer review of all aspects of program implementation, including rigorous review of scientific data used to inform many public and environmental health programs, public health interventions, and policy decisions.

F. **Analysis of All Feasible Alternatives**

**Alternative 1:** Extend 2.0 limited term positions for two more years.

**Pros:**
- Complete sample analyses of current studies.
- Ensure high data quality.
- Allow for program flexibility to continue to meet mandates.
- Return individual results to existing participants (required by law) and publish aggregated data in a timely manner.
- Retain skilled scientific staff.

**Cons:**
- Continued authority would increase the size and cost of state government.

**Alternative 2:** Establish permanent positions and funding.

**Pros:**
- Lessen the significant administrative impact of having to repeatedly recruit and hire limited term scientific staff to conduct and continue legislatively mandated program activities.
- Ensure high data quality.
Analysis of Problem

- Initiate new population-based investigations and/or long-term community studies to assess chemical threats to California’s vulnerable populations.
- Plan for a long-term capacity to assess or prevent exposures to toxic chemicals found in consumer products, the environment and the workplace.
- Return individual results to existing participants (required by law) and publish aggregated data in a timely manner.
- Facilitates retention of skilled scientific staff.

Cons:
- Requires a permanent increase in TSCA expenditures at a time when TSCA is projected to have a declining fund balance.
- Would permanently increase the size and cost of state government.

Alternative 3: Provide ongoing funding of $350,000 from TSCA and redirect 2.0 existing positions.

Pros:
- Initiate new population-based investigations and/or long-term community studies to assess chemical threats to California’s vulnerable populations.
- Plan for a long-term capacity to assess or prevent exposures to toxic chemicals found in consumer products, the environment and the workplace.
- Return individual results to existing participants (required by law) and publish aggregated data in a timely manner.
- Retain skilled scientific staff.

Cons:
- Depending on where positions are redirected from, this alternative may require a permanent increase in TSCA expenditures at a time when TSCA is projected to have a declining fund balance.
- Would permanently increase the size and cost of state government.

Alternative 4: Do Nothing/Status Quo.

Pros:
- Does not increase the size of government.
- Does not burden TSCA.

Cons:
- Sample throughput will be critically decreased, impeding the conduct of population studies to protect Californians from hazardous chemicals.
- The Program will not be able to plan for a long-term capacity to assess or prevent exposures to toxic chemicals found in consumer products, the environment and the workplace.
- The Department will lose highly skilled and trained scientists.

G. Implementation Plan

If this proposal is approved, the following activities will take place July 1, 2016 or upon approval of the FY 2016-17 State budget:

- Begin the process to retain existing limited-term staff or begin the recruitment and hiring process to fill the two positions.
- Initiate contracts to maintain service agreements for equipment.
H. Supplemental Information

This proposal requests funding for laboratory equipment and contract funds for equipment maintenance agreements.

I. Recommendation

Approve Alternative 1:

Extend two (2.0) limited term positions and funding from TSCA (Fund 0557) for two additional years.