A Path Forward for DTSC:

Investing in a safe and healthy California for all

Department of Toxic Substances Control

Overview

The Department of Toxic Substances Control (DTSC) has prepared this Workload Analysis Executive Summary to provide a brief description of DTSC's mission and outcomes and an overview of its workload analysis and resource gaps. This review will support future discussions of the service levels DTSC should be providing to more fully protect California's communities and the environment and is integral to the discussion surrounding the Administration's comprehensive approach to DTSC reform. Without fiscal reform, the resource gaps identified in this analysis will not be able to be funded. DTSC's work is vital to achieving the Administration's vison of a California for All, where every person can prosper, live in a healthy environment, and enjoy California's beautiful and diverse landscape.

DTSC's Mission

More than 40,000 chemicals are currently used in commerce, many of which are known to cause or contribute to a wide variety of threats to human health and the environment. Careful and protective management of these chemicals is crucial to ensuring that all Californians can thrive in a healthy environment. DTSC, established in 1991 under California's Environmental Protection Agency, is responsible for ensuring California's people, communities, and the environment are protected from the harmful effects of toxic chemicals that have the potential to pollute our land, water, and air. DTSC achieves its mission through a dedicated and experienced workforce of nearly 1,000 employees who deliver services through three core programs structured to address the past, present, and future impacts of harmful chemicals on California communities and the environment:

- DTSC's cleanup activities revitalize communities and restore economic and environmental health;
- DTSC's hazardous waste oversight and enforcement activities ensure businesses adhere to hazardous waste control laws (HWCLs) designed to prevent releases of toxic chemicals and the devastation it causes to our landscape and to the Californians' health and well-being; and
- DTSC's work to compel manufacturers to use safer chemicals ensures consumer products are manufactured to proactively prevent harm and unnecessary exposure to harmful chemicals.

Properly managed hazardous waste facilities significantly reduce the potential for releases that not only pollute surrounding industrial areas but have the potential to migrate offsite into nearby neighborhoods,

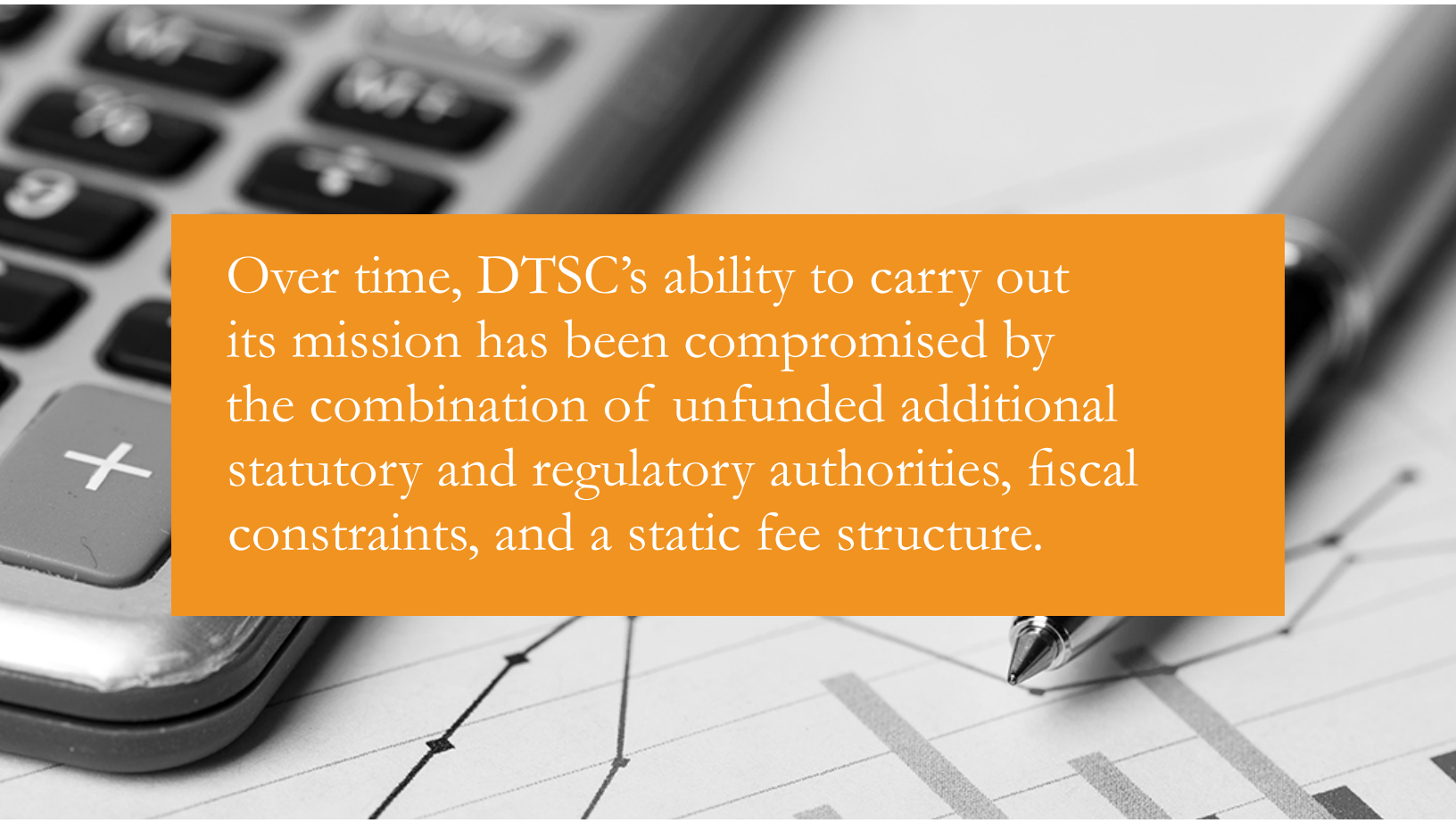
contaminating residential yards and groundwater sources. DTSC's Hazardous Waste Management Program works to enforce compliance with hazardous waste laws—taking steps to shut down egregious polluters when necessary in order to protect these neighborhoods.

DTSC's Safer Consumer Products (SCP) regulations established a unique and novel environmental and health regulatory framework to reduce exposures to harmful chemicals, implementing a precautionary approach that emphasizes prevention and innovation rather than mitigation of harm only after it has happened. The SCP regulations incentivize "benign by design" approaches as illustrated by DTSC's efforts to limit certain carcinogenic flame retardants found in the foams used in children's sleep products (e.g., nap mats, playpen cushions). When DTSC regulated the sleep products, manufacturers moved quickly to reformulate their products using foams that did not contain the carcinogens of concern. Thus, DTSC's action stimulated a $325 million industry to change their manufacturing process and prevent the exposure of potentially millions of infants and toddlers to carcinogenic and mutagenetic chemicals.

DTSC's work is vital to achieving the Administration's vision of a California for All, where every person can prosper, live in a healthy environment, and enjoy California's beautiful and diverse landscape. Protecting people depends on a fair and efficient cleanup program, a robust hazardous waste regulatory and enforcement program, and a Safer Consumer Products program to reduce the use of toxic chemicals in commerce. DTSC must be properly resourced to meet its mission.

Resource Challenges

A properly resourced DTSC is critical to the health and well-being of people in California, as is proper governance for transparency and accountability and a fee structure designed to deter the production of hazardous waste and hold polluters accountable. DTSC's responsibilities related to protecting California's environment and public health have significantly grown since 1991; however, the Department's staffing levels have remained relatively stagnant. Over time, DTSC's ability to carry out its mission has been compromised by the combination of unfunded additional statutory and regulatory authorities, fiscal constraints, and a static fee structure. Ultimately this hampers DTSC's capacity to provide a level of public health environmental protection consistent with California's environmental leadership. Most of the fees that support DTSC's programs were last updated in statute in 1998, yet 92 statutory authorities and mandates have been adopted since that time. The result is that DTSC's two largest accounts, the Hazardous Waste Control Account and the Toxic Substances Control Account, which primarily fund DTSC's core program activities, have been in structural deficit for the past several years and have received over $50 million in General Fund backfill in fiscal years 2019-20 and 2020-21. Because the existing fee structure was not developed to cover DTSC's current responsibilities and program costs, DTSC has struggled to deliver services aligned with its statutory authorities. This, plus the factors mentioned above, has resulted in an erosion of stakeholder trust in DTSC's ability to fully meet its mission.



Over time, DTSC's ability to carry out its mission has been compromised by the combination of unfunded additional statutory and regulatory authorities, fiscal constraints, and a static fee structure.

Meanwhile, the scale of the work that DTSC needs to take on to protect Californians is massive. The Center for Creative Land Recycling estimates that there are as many as 200,000[1] properties throughout the state—including former industrial properties, school sites, military bases, small businesses, and landfills—that are believed to be contaminated with some level of hazardous waste. DTSC has learned from its experience with Exide Technologies, Inc., that a strong enforcement program is essential to holding polluters accountable and to preventing pollution from impacting the environment. DTSC's mission is to protect human health and the environment from all these hazards. However, funding levels affect:

- The ability to undertake cleanups at contaminated sites across the state;
- DTSC's ability to fully enforce HWCLs to hold polluters accountable; and
- DTSC's actions to protect consumers from products that contain chemicals that have the potential to cause harm to human health and the environment

[1] https://www.cclr.org/

Administration's Proposed Solution

The Administration is taking bold action to ensure that DTSC can fully deliver its mission. Although the Department has made substantial progress improving its programs, the remaining challenges facing the Department cannot be addressed without meaningful governance and fiscal reforms. The Governor's 2021-22 Budget includes statutory changes that will create a sustainable funding model to enable the Department to enhance its ability to deliver its programs and services.

DTSC's Workload Analysis provides crucial information about DTSC's current resources and how they are being used, as well as examples of activities DTSC is not funded to perform. This information will inform ongoing conversations regarding proper service levels the proposed governance structure and funding model will support. The comprehensive solutions must answer three questions:

1. What programs and activities should DTSC be delivering to protect Californians and the environment. These will be referred to as "levels of service" or "service levels" throughout this document.
2. What fees and revenues are required to support those service levels while disincentivizing the use and mismanagement of hazardous substances in our economy and environment?
3. What governance structure best provides greater transparency and stronger community engagement?

Workload Analysis

To support discussions with the Legislature and stakeholders on the activities DTSC should be performing to increase its protection of public health and the environment, DTSC analyzed resources for its core programs at a specific point in time (Fiscal Year 2018-19). The data includes current staffing levels, available employee hours, and program deliverables, such as total number of permits issued, facilities investigated, and sites cleaned. The analysis also identifies areas where DTSC has made significant improvements in how it delivers its programs. The analysis is not intended to be used as a request for budgetary resources. Its purpose is to provide transparency on how DTSC is using its current resources and where it is insufficiently resourced to deliver on its mission and statutory authorities. The analysis will also support discussion on the service levels DTSC should be providing to more equitably protect California's communities and the environment.

DTSC used Fiscal Year (FY) 2018-19 workload information in its analysis of its resources and service levels for core programs. DTSC sought to understand how the resources were being employed as well as how programs align with their statutory requirements, authorities, and strategic priorities, and the outcomes of strategies that have improved outputs and service levels. While the Workload Analysis does not address all the resource gaps, it does provide a baseline for specific high-priority resources needed to deliver activities the Administration deems necessary to protect California's communities and the environment. The Analysis can inform discussions of those priorities with the Legislature and stakeholders. Additionally, this Executive Summary includes an estimate of the cost to close resource gaps for some of the highest strategic priorities identified, accounting for cross-program coordination and improved processes.

DTSC measured the work required for each core program's outputs, existing backlogs and unmet requirements, and relevant performance metrics. Estimates of time-per-task considered unique characteristics such as variable timeframes.

The resource gap was based on available work hours for core program positions and an estimate of support positions based on a ratio of current support positions to core program positions. They include communications, environmental equity, human resources, legal, health and safety, public participation, technology, and other administrative positions, as well as staff from the Environmental Chemistry Laboratory. These support programs are crucial to ensuring the core programs can deliver their services. For example, DTSC's legal counsel plays an integral role in enforcing HWCLs, and the information technology program ensures that tools like EnviroStor, DTSC's online data management system for tracking our cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities, are developed, implemented, and supported. DTSC's public participation staff is instrumental in ensuring the transparency and community engagement needed to serve.

Without adequate core and support staff, permit decisions may be delayed, regulated entities may not be adequately inspected or investigated, enforcement actions will not be timely prosecuted, and dangerous chemicals will continue to infiltrate commercial products. In other words, if DTSC cannot use

its authorities to the extent intended, bad actors will be emboldened to ignore requirements and people and the environment will suffer from that noncompliance.

Increasing staff alone will not solve all DTSC's resources needs. Updating and improving the security of DTSC's antiquated technology systems in the near future is essential to increasing DTSC's effective management of its resources, reducing timeframes for holding polluters accountable, and furthering DSTC's ability to deliver its responsibilities.

The results of the analysis show a significant misalignment between DTSC's responsibilities and its limited resources. At the same time, the analysis provides clear examples of the services DTSC could deliver with additional resources, such as staff, operating expenses, technology, and contract dollars.

Current DTSC Staffing Levels

DTSC used the 2019-20 Salaries and Wages Supplement, also known as the Schedule 7A, as a baseline to evaluate what programs and services can be delivered with current staffing levels. In 2018-19, DTSC's authorized position level was 1,070.1, which included 43 unfunded positions. Each DTSC core program's position authority is listed in the following table:

2018-19 Staffing Levels	2018-19 Authorized Positions per the 2019-20 7A[2]
HWMP* – Permitting Division	67.5
HWMP – Enforcement and Emergency Response Division	120.0
HWMP – Office of Criminal Investigations	31.0
HWMP – Policy and Program Support Branch	32.5
Safer Consumer Products Program	44.0
Cleanup Program	342.6
Support Programs	404.8

[2] Not all authorized positions were used in the core program analyses such as unfunded and executive positions and their direct reporting support staff. The total core program authorized positions in this column do not add up to 1,070.1 because support programs, such as Administration, Office of Legal Counsel, Financial Services, and other units are not included in the table.

* Hazardous Waste Management Program

Key Resource Gaps

As our society and lifestyles continue to generate hazardous waste, California has an obligation to take responsibility for the waste it generates. The following table shows additional positions and resources identified in the Program Analysis section below that are necessary to deliver some of DTSC's most critical services. The positions include both program and support staff and amounts to $188.9 million, with contract resources—an increase of 54.8 percent above the Department's FY 2020-21 budget of $344.8 million.

Positions Gap	**Core**	**315**
	Support	196
Total		**511**
Percent increase over 2020 Budget Act		**48.8%**
Cost of Gap	Core	$56.8 million
	Support	$28.2 million[3]
	IT*	$20.9 million
	Contracts	$83 million
Total		**$188.9 million**
Percent increase over 2020 Budget Act		**54.8%**

[3] The Support amount of $28.2 million also includes information technology resources to support the core program service levels identified in this Executive Summary.
* Information technology

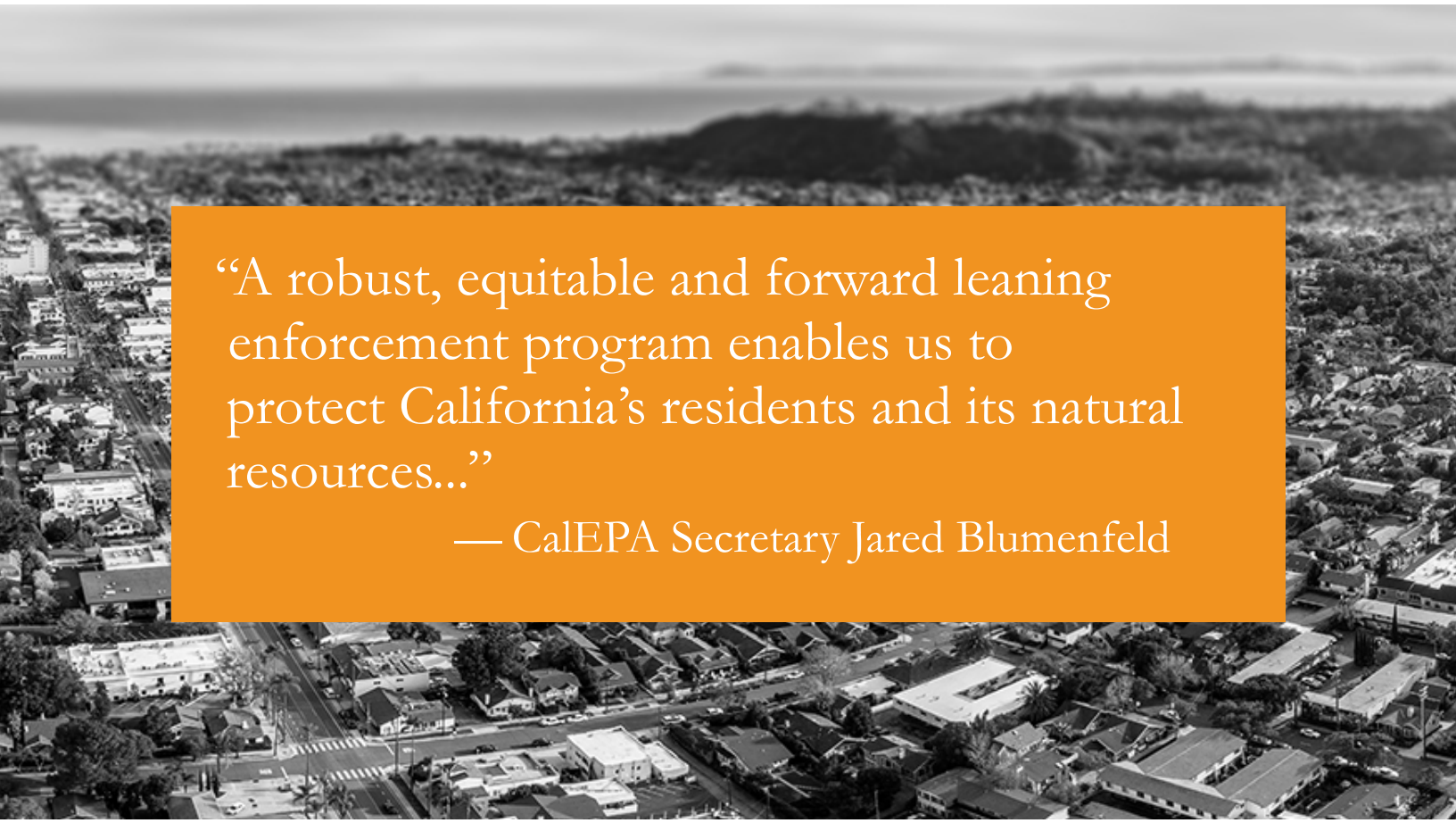
While this Executive Summary and workload analysis do not include all activities DTSC has the statutory or regulatory authority to perform, such as enforcing bans on toxics in products, or fully implementing a biomonitoring program, they do provide information on resource gaps that have been identified by the Administration as crucial to DTSC's mission. DTSC's Workload Analysis builds on the work done over the past several years by the Administration, Legislature, stakeholders, and DTSC to bring transparency to how DTSC is currently prioritizing its resources. While DTSC has made progress in improving its operations across all program areas over the last several years, the remaining challenges facing DTSC cannot be addressed without discussing all of the activities DTSC should be performing to increase its protection of public health and the environment and create a financially stable Department in the long term, with appropriate funding sources for each program.

The following provides more detail on the results of the Workload Analysis. Included are steps DTSC has already taken to improve its delivery of services, some general findings, and under the Program Analysis section, a description of DTSC's core programs and how DTSC is using its current resources, and finally a more detailed description of the gaps between current resource levels and the gap identified to deliver programs and services essential to protecting California's public health and the environment. This document is a summary of more detailed core program Workload Analyses, which include employee classifications, the number of work hours available for each classification, and the hours spent per output or projects, along with appendices that provide the data upon which the analyses is based.

Improving DTSC's Resource Management

DTSC has implemented program and process improvements to make its operations more efficient. Institutionalizing continuous improvement throughout the Department has led to improved internal communication and streamlined processes. Dozens of projects across the Department have employed Lean, Lean 6-Sigma, or other methodologies to identify and remove non-value-added process steps, resulting in high-quality products and services that can be delivered faster and smarter. Since implementing improvements:

Brownfield projects are moving more quickly, with decisions on nearly all investigation reports and cleanup plans being made within aggressive new timelines.



> "A robust, equitable and forward leaning enforcement program enables us to protect California's residents and its natural resources..."
>
> — CalEPA Secretary Jared Blumenfeld

- The time DTSC takes to make permit decisions has been drastically reduced (from 4.4 years to 2.5 years on average since 2014), and applicants are provided with more support and resources so that applications are submitted without deficiencies. Inspections are more consistent, and staff have the tools to verify facilities are complying with state and federal laws.
- Brownfield projects are moving more quickly, with decisions on nearly all investigation reports and cleanup plans being made within aggressive new timelines.
- The overall time required to pursue potential SCP Priority Products and develop technical support documents has been greatly reduced by leveraging class-based research strategies.

The High-Performing Programs and Services goal in DTSC's draft strategic plan outlines additional efficiencies that will be put in place, but it's abundantly clear that these will not free up enough resources for DTSC to meet the state's needs.

Enforcement Findings

As DTSC conducted its analysis, it became evident that a lack of resources significantly impacts enforcement activities. Secretary Blumenfeld has stated, "A robust, equitable and forward leaning enforcement program enables us to protect California's residents and its natural resources from environmental degradation caused by those who violate environmental laws. Although California has an abundance of enforcement tools, the State faces persistent environmental challenges, including the disparate impact of pollution on environmental justice communities."

Vulnerable communities are made even more vulnerable by limited enforcement resources

Communities that have suffered a disproportionate burden of pollution and other toxic substances often lack access to clean air, water, and land and the basic resources needed to lead healthy lives. DTSC has identified opportunities to pursue stronger enforcement in these communities by using its legal authorities, analytical expertise, and effective communications to support just outcomes. However, the Workload Analysis identifies instances where DTSC currently lacks the capacity to sufficiently monitor highly polluting industries and provide sufficient deterrence to ongoing or future releases or noncompliance in these vulnerable communities. For example:

- When DTSC's Office of Criminal Investigations (OCI) inspected 28 jewelry stores in West Oakland in 2017, 21 of them (75 percent) had violations. Yet DTSC does not have the resources to continue enforcement in this sector.
- There are nearly 5,600 registered and unregistered hazardous waste transporters, many of which park their loaded vehicles in communities that are significantly impacted by multiple sources of pollution. But DTSC is only resourced to inspect a small fraction of these transporters.
- Businesses such as machine shops, metal plating shops, and auto dismantlers pose a significant contamination risk to surrounding communities, which are typically disproportionately burdened with environmental, economic, and health risks. These types of businesses require routine inspections and enforcement actions to effectively prevent releases and exposures and deter violations of protective requirements. As with transporters, DTSC is only resourced to inspect a small percentage of these businesses on an ad hoc basis.

In every enforcement case, critical legal resources are also needed to hold polluters accountable. DTSC's Office of Legal Counsel estimates that the legal resources needed for each enforcement case can range from 150 hours for a simple case to 2,500 hours (or more) for more complicated cases. These estimates do not include additional time that is required of inspectors to support the enforcement case development, our Environmental Chemistry Laboratory to analyze samples collected during inspections, costs for the Attorney General's Office, and management to support the enforcement case as it proceeds. While litigation can be unpredictable, DTSC's chronic lack of resources to support enforcement cases impacts our ability to take effective and consistent enforcement and deter future violations of HWCLs.

A properly resourced DTSC could take earlier enforcement actions, prevent further spread of contamination, and hold accountable those polluters whose activities primarily target environmental justice communities.

Program Analyses

The following sections provide the information and detail to support conversations about DTSC's current service levels and what can be achieved by addressing gaps in resources. These sections describe the responsibilities of DTSC's core programs, identify key findings of the Workload Analysis, and assess the resources needed to address the gap in each program. The core program analyses summarized in this document identify resources needed to deliver increased service levels, as well

as corresponding support program resources. However, the core program workload analyses did not identify all resource limitations that cross all programs—such as gaps in contracting, performance tracking, training, administrative support, or other support activities.

Hazardous Waste Management Program

Hazardous waste, waste with a chemical composition (or other properties) that makes it capable of causing illness, death, or some other harm to humans and ecosystems, is generated daily throughout California. Californians need facilities that can treat, store, or dispose of these wastes safely. DTSC has several roles in regulating more than 100,000 entities to prevent the mismanagement or release of hazardous waste into the environment.

The Hazardous Waste Management Program (HWMP) protects communities and the environment by ensuring that hazardous substances are handled, transported, and stored safely. The program is responsible for implementing the federal Resource Conservation and Recovery Act (RCRA) program in California. This includes overseeing and conducting inspections on permitted hazardous waste facilities to make sure they are following the rules. The program enforces the statutes and regulations relating to hazardous waste, hazardous materials, and universal wastes. It investigates complaints of illegal storage, treatment, or disposal of hazardous waste and assists local law enforcement agencies with investigations and enforcement activities. Program staff also assist in responding to emergencies such as wildfires that involve the release of hazardous materials.

HWMP has four primary units, each responsible for different facets of the hazardous waste regulatory program: Permitting, Enforcement and Emergency Response, Criminal Investigations, and Policy and Program Support. HWMP has implemented several key initiatives to improve performance in these areas; they include institutionalizing continuous improvements to the permitting process, reducing a historic backlog of permit decisions, and enhancing enforcement efforts—particularly in vulnerable communities. These initiatives have allowed DTSC to process permits more efficiently. California Environmental Protecting Agency (CalEPA) Secretary Blumenfeld established a high priority on enforcement throughout all of CalEPA, including coordination of statewide enforcement and permitting regulations that proactively address existing environmental justice issues.

Permitting Division

The Permitting Division (Permitting) oversees approximately 100 operating, closure, and post-closure permitted facilities throughout the state to treat, store, or dispose of California's hazardous waste. It maintains more than 1,000 standards a facility must meet before it can operate, including protective engineering design standards, stringent operating procedures, and requirements for emergency contingencies, groundwater and air monitoring, and financial assurance. The Permitting Division conducts extensive outreach efforts to inform and listen to communities near permitted facilities. It also regularly reviews the facilities' compliance with hazardous waste laws to determine whether to revoke or deny their permit, reviews sampling and monitoring reports, and modifies permits to maintain safe operation when changes occur.

Workload Analysis Findings

In FY 2018-19, Permitting operated with a budget of approximately $13 million and 67.5 positions.[4] Sixty-five percent of staff hours were dedicated to technical work related to permitting projects, California Environmental Quality (CEQA) evaluations, financial responsibility, consultation and outreach, corrective action and support of the Site Mitigation and Restoration Program, and implementing the requirements of Senate Bill 673 (Chapter 611, Statutes of 2015) such as the Violations Scoring Procedure (VSP). The remaining time was dedicated to essential work such as training and program development, Lean 6-Sigma projects, and legislatively- mandated reforms.

In 2018-19, Permitting issued 18 permit decisions for renewals and Class 2 or Class 3[5] permit modifications and oversaw closure of 12 facilities, many in environmental justice communities. The division also analyzed 1,500 CEQA documents, including Environmental Impact Reports and other documents such as negative declarations for potential environmental impacts, including air quality, cultural resources, and greenhouse gas emissions. The Permitting Division also reviewed each facility for adequate financial assurance funds for proper closure and cleanup activities, amounting to 600 mechanisms totaling $2.5 billion.

Resource Gaps

DTSC's Workload Analysis identified program areas that continue to be under-resourced in essential activities.

[4] Of the 67.5 positions authorized, the Workload Analysis includes 63.5 positions. Unfunded positions and executive office positions were not included in the analysis. The operating budget includes facility and indirect costs.

[5] Class 2 modifications apply to changes needed to enable a permittee to respond to variations in the types and quantities of wastes managed under the permit, technological advancements, and changes necessary to comply with new regulations.

Four additional positions would enable Permitting to address two underfunded services:

- Implement the Violations Scoring Procedure and restore permit evaluation work that has been hampering DTSC's progress toward meeting its performance metric to process 90 percent of permits within two years; and
- Sufficiently review CEQA documents submitted by other agencies. DTSC reviews these documents as a Responsible Agency with unique expertise to determine whether those agencies' projects have environmental impacts from hazardous substances requiring DTSC comment.

In addition to the Permitting resources, this Workload Analysis identifies two additional support services positions. This increase in Permitting Division resources would require a 5 percent increase above the current program funding level of $14.6 million and, together with the support services, would represent an increase of 0.3 percent in budget authority for the Department.

Activities	Additional Positions Needed	Cost of Additional Resources
VSP implementation and CEQA review for other agencies	4	$0.720 million
Support positions	2	$0.252 million

Cost for Additional Program and Support Positions	Percent Increase in Program Budget	Percent Increase in DTSC Budget
$0.972 million	5%	0.3%

These additional resources would enable DTSC to ensure permit applications include the review of the VSP score and any dispute documents that may ultimately impact DTSC's permit decision. Additionally, the resources would enable DTSC to use VSP information when determining whether any permit modifications need to occur for the facility to comply with California's hazardous waste laws, operate safely, and protect the environment. The resources would also enable DTSC to provide input into the CEQA documents submitted by other agencies, which is critical to preventing or mitigating human and environmental harm.

Enforcement and Emergency Response Division

The Enforcement and Emergency Response Division (EERD) protects Californians by conducting inspections of hazardous waste facilities and pursuing enforcement cases for all violations. EERD supports the Permitting Division by evaluating permit and permit modification applications. It supports and evaluates the local and state Certified Unified Program Agencies (CUPAs),[6] and coordinates

[6] Certified Unified Program Agencies, or CUPAs, are local agencies that are certified by the Secretary of the California Environmental Protection Agency to implement the CalEPA Unified Program elements in the CUPA's jurisdiction.

inspector trainings and enforcement activities with the U.S. Environmental Protection Agency (U.S. EPA) and other agencies. EERD team members evaluate each permitted facility's annual inspection to develop a VSP score, which helps them to make final permit decisions. Emergency Response staff are responsible for hazardous waste cleanup after disasters so that residents can safely return to their homes. EERD also removes off-highway spilled or abandoned hazardous materials where there is no responsible party and provides 24-hour duty officer response.

Workload Analysis Findings

In FY 2018-19, EERD operated with a budget of approximately $22 million and 120 positions.[7] Sixty-three percent of EERD's time was dedicated to inspections, emergency response, and technical services. Specific activities include inspections of hazardous waste generators, transporters, and permitted facilities; hazardous waste cleanup after natural disasters; oversight of the local CUPAs; implementation of the state CUPA program; technical services provided to other DTSC program areas and external agencies; and technical training. The remaining time was spent on administrative activities and training, which includes maintaining databases and web content, budget management, strategic planning, and all-staff meetings.

EERD has conducted 2,426 inspections at permitted generator, transporter, and electronic waste facilities over the last five years. These inspections provide local communities with confidence that the facilities in their area are compliant with HWCLs. In that same period, DTSC settled 218 cases and collected $20.8 million in penalties, much of which went toward cleaning up sites that otherwise would have required taxpayer dollars. For example, in FY 2018-19, Strategic Materials Inc. settled a case for $900,000 in penalties for illegally disposing of more than 500,000 pounds of batteries. Part of that settlement money funded a new hazardous waste training program within its organization for the proper management of hazardous waste. Fifty-four percent of inspections in FY 2018-19 were conducted in environmental justice communities.

During the 2017 and 2018 wildfire seasons, DTSC's Emergency Response staff were in the field for more than 35 weeks, assessing and removing household hazardous waste, asbestos, and electronic waste from approximately 18,000 private, public, and commercial properties impacted by the Camp, Woolsey, and Hill fires. In addition to wildfire responses, the California Office of Emergency Services mission-tasked DTSC to respond to the Russian River flooding in February 2019. In a three-week span, Emergency Response staff removed household hazardous waste and e-waste from over 2,000 properties.

DTSC has been delegated authority by CalEPA to serve as the Imperial and Trinity County CUPAs, ensuring that businesses in those counties comply with HWCLs and regulations that protect public health, safety, and the environment. In FY 2018-19, DTSC staff in the Imperial and Trinity CUPAs conducted 405 inspections and followed up on 20 complaints that resulted in six inspections with

[7] Of the 120 positions authorized, the Workload Analysis includes 105 positions. Unfunded positions and executive office positions were not included in the analysis. The operating budget includes facility and indirect costs.

Class I violations. Eight cases were settled totaling $240,000 in penalties. Imperial and Trinity CUPAs also reviewed four notifications of hazardous material releases.

With the implementation of the VSP program, facilities that receive a conditionally acceptable score are required to conduct facility compliance audits and submit reports to DTSC documenting those audits. DTSC could, and should, increase inspections at these facilities to prevent future violations and protect public health. Initially, DTSC did not identify the need for additional resources to implement VSP. However, after gathering more information and implementing the regulations over the last several years, it is clear that DTSC does require additional resources to fully implement the program and to take actions the scores indicate are necessary to protect public health.

In FY 2018-19, enforcement staff conducted 22 CUPA evaluations and 36 CUPA oversight inspections, responded to 592 technical inquiries from the CUPAs and regulated community regarding hazardous waste requirements, attended 27 technical CUPA meetings, and provided seven classroom trainings to 200 CUPA staff. Training includes hazardous waste generator training, tiered permitting, cyanide treatment, tank integrity assessment training, and electronic manifest training.

Resource Gaps

The Workload Analysis identified that resource gaps limit EERD's oversight of the CUPAs and of hazardous waste transporters. Additionally, the Workload Analysis demonstrated that DTSC is inadequately resourced to implement the VSP.

In addition to the EERD program resources discussed below, this analysis includes 14 support services positions. The increase in EERD program resources would require a 23 percent increase above the current program funding level of $21.7 million, and together with the support services would represent an increase of 2 percent budget authority for the Department.

Activities	Additional Positions Needed	Additional Budget Required
277 transporter inspections	8	$5.0 million
CUPA technical implementation	16	
VSP implementation	4	
Support positions	14	$2.0 million

Cost for Additional Program and Support Positions	Percent Increase in Program Budget	Percent Increase in DTSC Budget
$7.0 million	23%	2%

DTSC has found violations in approximately one in three inspections of transporters with no inspection history.

A greater ability to enforce hazardous waste laws, providing businesses with current information and educating them on their responsibilities, will increase compliance, reduce violations, and increase the state's ability to protect communities and the environment. Strong enforcement against businesses that do not comply will create a level playing field for all businesses.

Hazardous Waste Transporters

In FY 2018-19, six environmental scientists working in EERD completed 144 transporter inspections with subsequent enforcement. Data show that, on average, DTSC has found violations in approximately one in three inspections of transporters with no inspection history. This means that a high number of transporters are violating HWCLs, which adds to the pollution burden in communities already experiencing high levels of toxic chemicals in their environments. Stakeholders have expressed a desire for DTSC to increase inspections of each transporter to every three years (rather than five as is currently done) and provide more comprehensive oversight. To do so, EERD would need to conduct 277 inspections annually. The resulting gap in resources is eight positions. Inspections of inactive and unregistered transporters are not included in these figures.

Certified Unified Program Agencies

EERD provides technical guidance to the CUPA program, ensuring consistent statewide standards that deliver quality environmental protection at the local level. EERD oversees the hazardous waste generator and onsite waste treatment surveillance and enforcement program carried out by the CUPAs. An effective statewide hazardous waste inspection and enforcement program requires well-trained inspectors and

ongoing support to the local CUPAs. To strengthen oversight capabilities, provide additional technical support through onsite coordination, and offer enhanced training for more consistent and equitable enforcement, the Workload Analysis indicated EERD would need 16 additional positions.

Violations Scoring Procedure

EERD is responsible for evaluating and calculating inspection and hazardous waste facility scores, and assigning a compliance tier to each facility every year. This VSP empowers DTSC to make permit decisions and impose permit conditions in response to the totality of an operation's compliance history. VSP requires systematic, consistent evaluations and extensive documentation. Accordingly, EERD staff develop, maintain, and manage processes, procedures, numerous templates, quality control and quality assurance measures, a tracking system, an administrative record for each facility, and documentation required to substantiate the scoring for 10 years of violations for all facilities. These activities reduce the amount of time EERD has available to conduct facility inspections and take the necessary follow-up enforcement actions. The Workload Analysis showed that EERD needs an additional four positions to perform this work. DTSC must also provide permitted entities with a process to dispute both inspection and facility scores. This process requires DTSC to establish a dispute officer and support staff independent of EERD, as well as legal resources to support litigation.

OCI participates in statewide investigations jointly with federal, state, and local law enforcement agencies.

Office of Criminal Investigations

The Office of Criminal Investigations holds accountable individuals and businesses who engage in illegal hazardous waste activities that harm or pose serious risks to the public, the environment, and communities. Each year OCI engages in enforcement activities that prevent thousands of pounds of hazardous waste from being illegally released to the air, soil, or water.

OCI plays a pivotal role in CalEPA Secretary Blumenfeld's enforcement priorities and is the only program in state service with sworn law enforcement officers specially trained to investigate the most serious environmental criminal offenses posing substantial danger to the California public and environment. They are also the only unit of sworn peace officers in CalEPA. OCI participates in statewide investigations jointly with federal, state, and local law enforcement agencies to pursue violations of HWCLs. Many environmental crimes result from the improper disposal of chemicals and toxic substances regulated by other agencies during their useful life and application. Once the chemicals have been disposed of, OCI uses its authority under the HWCLs to pursue polluters. Using this authority, OCI coordinates multimedia environmental investigations with other CalEPA agencies. OCI routinely participates with regional, state, and federal task forces, and interfaces with other enforcement and prosecutorial agencies such as the United States and California Attorneys General, United States Attorney, District Attorneys, and Circuit Prosecutors.

Working to successfully protect people and the environment, OCI combines the expertise of sworn peace officers, investigators, and environmental scientists alongside state, local, and federal environmental

and law enforcement agencies. Together, these organizations execute search warrants on businesses suspected of committing environmental crimes and refer cases to local district attorneys, the California Attorney General, or the U.S. Attorney General for criminal prosecution. For example, in 2017, the Yolo County District Attorney's Office settled a case developed by DTSC that resulted in the removal of thousands of tons of hazardous waste ash from agricultural fields, preventing the future illegal disposal of thousands of tons of hazardous waste.

Workload Analysis Findings

In FY 2018-19, OCI operated with a budget of approximately $6 million and with 31 positions.[8] Sixty-six percent of staff time supported enforcement actions for criminal, civil, and administrative enforcement cases, and hazardous waste investigations with local governments, statewide agencies, and other law enforcement organizations. A portion of that time was also spent on required technical training specific to environmental enforcement and investigations. The remainder of the time was spent on priority programmatic operations, including maintenance of equipment used in investigations, strategic planning, attending statewide coordination meetings, and administrative trainings.

In meeting its mission to investigate the most egregious hazardous waste violators and protect environmentally burdened communities, OCI conducted 65 high-priority metal recycling inspections between 2016 and 2019 and pursued administrative, civil, or criminal actions on 75 percent of these inspections. For example, between 2010 and 2015, OCI conducted electronic waste investigations at AT&T and Comcast. Through the investigations and resulting settlements, OCI prevented the continued unlawful disposal of electronic goods, batteries, aerosol cans, and various gels and liquids containing hazardous waste in municipal landfills. Overall, in 2018-19, OCI closed 59 cases and received decisions on 17 referred cases. OCI cases resulted in 16 felonies and 190 days of jail time for hazardous waste violators.

Approximately one-half of OCI's workload is focused on identifying and pursuing enforcement of egregious environmental crimes against businesses that pose a high risk of illegally releasing or disposing of hazardous waste, particularly in environmental justice communities.

Resource Gaps

The Workload Analysis showed an increase in resources would be necessary to strengthen the Department's ability to hold polluters accountable and thus reduce the amount of illegal hazardous waste management and disposal.

When hazardous waste handlers are not inspected, and enforcement is lacking, compliance rates are low. Even with the 15 additional positions identified in the Workload Analysis, OCI would still need to carefully prioritize its work to target enforcement effectively. This Workload Analysis includes an additional seven support services positions. This increase in OCI resources would require a 45 percent

[8] The Workload Analysis includes all of the authorized positions. The operating budget includes facility and indirect costs.

increase above the current program funding level of $6 million and, together with the support services, would represent an increase of 1 percent in budget authority for the Department.

OCI works with the CalEPA Environmental Justice Task Force[9] to provide community consultation and compliance assistance for regulated businesses. These initiatives prevent cheap, heavy-metal laden jewelry from being sold to children and mitigate environmental impacts of lead, cadmium, and other toxic metals in disadvantaged communities.
An additional 15 positions would enable OCI to conduct 50 to 100 more investigations in key areas of opportunity to hold polluters accountable:

- There are approximately 300,000 illegal cannabis grow operations in California, some of which use banned pesticides that are considered hazardous waste when left at a grow site or illegally disposed of. While working with the federal government, OCI has found evidence of the banned pesticide Carbofuran used at many of these sites. Use of Carbofuran, which has one of the highest acute toxicities to humans of any insecticide, is illegal in the United States. OCI does not have sufficient resources to investigate illegal cannabis grow sites, which can potentially cause serious harm to the environment as well as to human health.
- CalEPA boards, departments, and offices (BDOs) receive complaints about potential violations of HWCLs. Additionally, OCI receives complaints that come directly to DTSC from local, state, and federal entities. Many of these complaints could potentially involve serious environmental crimes involving pollutants in various media (air, water, wastewater, and waste). OCI reviews all of these complaints to determine if they have capacity to initiate a preliminary investigation or whether they should and can be handled by another BDO or local agency. While not all of these complaints would result in a criminal investigation, failing to conduct a preliminary investigation, where OCI determines the risk of violations, the impact, and the location of those violations, puts the state at risk for ongoing violations. In FY 2018-19, OCI was only able to investigate 112 complaints based on available resources. Of those, 17 have ongoing investigations and 15 are pending criminal, civil, or administrative actions. One criminal case was adjudicated, and one civil case was settled. Because of a lack of resources, OCI must frequently pass up opportunities to investigate cases that have a high risk of misdemeanor or felony violations of HWCLs or, because their caseload is too high for their resource levels, the investigations are delayed. When OCI cannot conduct a preliminary investigation, it doesn't have the information to follow through with a full investigation when warranted, leaving the state, particularly vulnerable communities, at high risk of exposure to harmful chemicals that are being illegally disposed of or managed.
- There are approximately 25,000 stores selling metal-containing jewelry in California. When OCI inspected 28 jewelry stores in 2017 as part of the West Oakland environmental justice initiative, 21 of them (75 percent) had violations. The scale of this problem across California is significant, yet DTSC's resource limitations hinder our ability to pursue a meaningful number of violators.

[9] The Environmental Justice Task Force coordinates the compliance and enforcement work of CalEPA's BDOs in areas of California that are burdened by multiple sources of pollution and are disproportionately vulnerable to its effects.

Activities	Additional Gap	Cost of Additional Resources
50-100 additional investigations annually focused on high-priority environmental justice-related activities	15	$2.7 million
Support positions	7	$1.0 million

Cost for Additional Program and Support Positions	Percent Increase in Program Budget	Percent Increase in DTSC Budget
$3.7 million	45%	1%

Policy and Program Support Branch

HWMP's Policy and Program Support Branch (PPSB) provides in-depth policy and regulatory guidance to the public, industry, and government agencies; develops and interprets hazardous waste management statutes and regulations; and manages the federal RCRA Grant and DTSC's status as a RCRA-authorized state. It provides the regulatory and policy foundation to ensure hazardous waste handlers and DTSC's regulatory community have the tools and information they need to manage hazardous wastes legally and safely in California.

Workload Analysis Findings

In FY 2018-19, PPSB operated with a budget of approximately $5 million and with 32.5 positions.[10] Sixty-one percent of PPSB staff time was spent on regulatory development, RCRA grant management, and technical projects. These categories include researching regulations, laws, and policies to provide the regulatory framework and scientific data to DTSC staff, criminal investigators, industry stakeholders, and government agencies. A portion of this time also included development and analysis of hazardous waste management regulations, technical training, and RCRA authorization activities. The remainder of time was spent on mission-critical administrative activities such as budget analysis, contracts management, data analysis, web content management, and administrative training.

In 2018-19, PPSB responded to more than 6,000 regulatory questions from hazardous waste inspectors, industry environmental managers, government regulators, and the public, helping all parties determine how federal and state hazardous waste management laws and regulations apply to site-specific scenarios related to hazardous waste generation, treatment, and disposal. These inquiries can lead to case-specific, in-depth interpretive guidance for laws and regulations or, when appropriate, approval for specific exemptions or exclusions from certain requirements.

[10] The Workload Analysis includes all of the authorized positions. The operating budget includes facility and indirect costs.

PPSB also provided more than 700 written responses to partner agencies and the public with tracking data for the movement of electronic wastes, orphan appliances, treated wood waste, household hazardous waste, and other materials that are subject to hazardous waste management requirements. PPSB conducted more than 75 evaluations of site-specific applications for certification, such as for Certified Appliance Recyclers or Transportable Treatment Unit operators, providing them with specified authorization for eligible activities.

Resource Gaps

The Workload Analysis showed PPSB to be deficient in the resources necessary to deliver its essential program services. Two resource gap areas include work to comply with federal RCRA requirements and California's need to reconstitute/re-establish a Pollution Prevention (P2) program that aligns the state's current needs.

In addition to the identified resources for RCRA Authorization and P2, this Workload Analysis includes an additional 17 support services positions. The increase in PPSB program resources would require a 118 percent increase above the current program funding level of $5.2 million, and together with the support services would represent an increase of 2.6 percent in budget authority for the Department

Activities	Additional Positions Gap	Cost of Additional Resources
RCRA authorization	11	$6.1 million
Restored P2	23	
Support positions	17	$2.4 million

Cost for Additional Program and Support Positions	Percent Increase in Program Budget	Percent Increase in DTSC Budget
$8.5 million	118%	2.6%

Re-establishing a program like P2 would help businesses implement pollution prevention principles to generate less solid and hazardous waste, use fewer toxic chemicals, conserve water and energy, and reduce air pollution. These strategies will reduce the burden of cleaning up contaminated sites across California.

RCRA Authorization

In 1992, DTSC received authorization from the U.S. EPA to implement the RCRA Subtitle C requirements and associated regulations. Receiving authorization from the U.S. EPA means that DTSC is the primary authority enforcing the RCRA hazardous waste requirements in California. RCRA Subtitle C establishes standards for the generation, transportation, treatment, storage, and disposal of hazardous waste in the United States. Since receiving its base authorization, DTSC has requested and received authorization to implement additional parts of the federal program.

DTSC receives annual federal funding for its implementation of the RCRA program. PPSB is responsible for managing the annual $10 million federal RCRA grant and work plan, which funds DTSC's oversight of California's RCRA program. DTSC must seek authorization from U.S. EPA to adopt and enforce any new federal requirements or rules. DTSC's RCRA authorization allows it to:

- Enforce RCRA requirements for the management of hazardous waste in California (generator, transporter, treatment, etc., to include both criminal and civil enforcement cases);
- Issue RCRA permits for hazardous waste facilities;
- Obtain federal funding for DTSC's RCRA Grant Activities, which funds portions of HWMP and Cleanup activities; and
- Administer the federal hazardous waste program in lieu of the U.S. EPA. This is important so that the regulated community and state residents clearly understand the regulations used to manage RCRA hazardous waste in California. Without California's delegation, two different agencies, federal and state, would implement their respective standards for hazardous waste management. This would cause confusion among the regulated community on how each government's separate standards would apply to site-specific situations, resulting in potential negative risks to human and environmental health.

While California has adopted many federal rules over the years, it has not completed all of the authorization steps to maintain a fully compliant hazardous waste program. Maintaining RCRA authorization is essential to California's ability to manage an effective, enforceable hazardous waste management program, but only two staff are available to perform this work.

To maintain DTSC's RCRA program and avoid the potential loss of federal funding, PPSB requires 11 additional positions. Without additional resources, DTSC will be unable to effectively implement the RCRA program and prevent hazardous waste from harming people, communities, and the environment.

Pollution Prevention and Source Reduction

Stakeholders have expressed a strong interest in re-establishing DTSC's P2 or another program that reduces hazardous waste at the source of its generation, especially because California has only two remaining hazardous waste landfills, both of which are in environmental justice communities. An updated P2 program could assist generators in reducing their fees and prevent waste from being sent to offsite hazardous waste facilities operated either in California or in other states or countries with less protective environmental standards. Based on DTSC's prior experience, PPSB would require 23 positions to establish an updated P2 program. These staff would identify emerging waste management technologies, determine appropriate waste classification, and conduct hazardous waste trend analyses.

Safer Consumer Products Program

DTSC's Safer Consumer Products Program is charged with accelerating the quest for the use of safer chemicals in consumer products. To do this, the program requires manufacturers of products that contain chemicals deemed to pose risks to human health or the environment to search for safer materials. Since the program's implementation in 2014, SCP's resources have supported building a new, innovative program composed of a multidisciplinary team of scientists and engineers and employing a science-based approach while leveraging multimillion-dollar markets and manufacturers' interests. SCP consistently provides transparency and accountability through its management system, biannual Green Ribbon Science Panel meetings, and the online resource and submission portal CalSAFER.

SCP's groundbreaking four-step regulatory approach is precautionary and promotes market shifts to safer alternatives, rather than regrettable substitutions that often result from legislative bans. The four-step process is:

1. Identification of Candidate Chemicals and Priority Products: Selecting specific "Priority Products" that contain one or more of 3,100 chemicals of concern identified because they are known to cause harm to people or the environment.
2. Listing Priority Products in regulation: Adopting the Priority Products into regulations signals to manufacturers in California that an Alternatives Analysis will be required.
3. Alternatives Analysis: Requiring those manufacturers to conduct a rigorous and comprehensive Alternatives Analysis to identify safer alternatives, address impacts throughout the product lifecycle, and avoid regrettable substitutes.
4. Regulatory Response: Imposing "Regulatory Responses" such as requiring research on safer chemicals, providing consumer information, or restricting or banning the sale of products if necessary.

The promise of SCP's approach driving markets to adopt safer alternative product components or prevent dangerous components' introduction into the California marketplace is already becoming evident as the first Priority Product listings take effect:

- Designating children's sleep products (nap mats, portable cribs, etc.) containing either of two carcinogenic flame retardants as Priority Products in July 2017 stimulated manufacturers' shift to safer components without carcinogens. All responsible entities removed the chemicals from the products prior to the Priority Product listing; no Alternatives Analyses were required.
- Issuing Regulatory Responses to manufacturers of spray polyurethane foams used for insulation and roofing starting in 2021, which will provide funding for research on safer alternatives and additional safety information to workers. Sixteen responsible entities submitted abridged Alternative Analysis reports.
- Regulating paint strippers with methylene chloride started saving lives in January 2019, as manufacturers began to shift to safer alternatives. Eleven manufactures identified more than 50 products for sale in California, and more than half of these products were removed from the California market. Five manufacturers were required to conduct an Alternatives Analysis and look for safer alternatives for their products.

Workload Analysis Findings

In FY 2018-19, SCP operated with a budget of approximately $10 million and with 44 positions.[11] Seventy-five percent of staff time was spent on implementing activities in the four-step process:

- Chemical and product evaluation activities, which include the identification and characterization of product-chemical combinations, preparation of technical documents, interaction with stakeholders, and engagement with other state programs to identify potential Priority Products in Steps 1 and 2.
- Rulemaking activities to list Priority Products, which include crafting regulations, drafting all supporting technical documents, conducting External Scientific Peer Reviews, and developing required fiscal and economic analysis. Work also includes legislation and policy analysis.
- Alternatives Analysis, which includes creating tools and guidance to help manufacturers complete Alternative Analysis reports, consulting with manufacturers, reviewing Alternatives Analysis reports for completeness, quality, and compliance, and issuing Notices of Deficiency or Approval (Step 3).
- Operations to support the entire program by providing information technology, contracts, procurements, budget, personnel, database support, and coordination of all stakeholder outreach and public engagement activities.

The remainder of staff time was dedicated to required administrative duties, supervision, external technical support, and support for the statutorily mandated brake pads program.

Resource Gaps

SCP has multiple new Priority Products in process for regulation from a diverse set of categories, including nail care products, laundry detergents, carpets and rugs, graffiti removers, cleaning products, personal care products, and food packaging. However, SCP is not resourced to fully implement the program as intended.

SCP's Workload Analysis estimates that 39 additional positions will produce a consistent and normalized distribution of products through SCP's product evaluation life cycle. Strategically, these resources are necessary to fully implement a program able to make a meaningful impact on the large universe of consumer products within SCP's authority and mission. In addition to the SCP program resources, this analysis includes an additional 17 support services positions. The increase in SCP program resources would require a 73 percent increase above the current program funding level of $9.6 million, and together with the support services would represent an increase of 3 percent budget authority for the Department.

[11] Of the 44 positions authorized, the Workload Analysis includes 41 positions. Unfunded positions were not included in the analysis. The operating budget includes facility and indirect costs.

Activities	Additional Positions Gap	Cost of Additional Resources
Consistent and normalized distribution of products through SCP's product evaluation life cycle	39	$7.1 million
Support positions	17	$2.5 million

Cost for Additional Program and Support Positions	Percent Increase in Program Budget	Percent Increase in DTSC Budget
$9.6 million	73%	3%

With these resources, SCP accelerates the manufacture of safer products by compelling manufacturers to reduce or eliminate the use of toxic chemicals, particularly for California's sensitive populations. SCP levels the playing field, ensuring that more manufacturers opt for safer product design. It drives product innovation by providing flexibility to manufacturers for how they address harmful chemicals. From children to workers, SCP's science-based approach to chemicals policy leads to healthier lives, greener businesses, and more informed consumers.

Despite success in implementing the SCP regulations so far, SCP is still only in the Alternatives Analysis phase of the regulations; SCP will reach the Regulatory Response phase in early 2021 and has yet to undertake comprehensive compliance and enforcement efforts. Without an augmentation of resources, SCP will be forced to shift resources to Regulatory Response, compliance, and enforcement as current and planned Priority Products work their way through the regulatory process; this will significantly slow research on potential new Priority Products. SCP's capacity for new products will be reduced by roughly 80 percent, and the program's ability to process more impactful and complex consumer products will be further limited.

Site Mitigation and Restoration Program

The Site Mitigation and Restoration (Cleanup) Program investigates sites with known or suspected contamination; when contamination is found, the Cleanup Program oversees removal or control to reduce hazardous releases and restore these sites to productive use, and then it manages their cleanup. The program also manages grant funds and provides cost recovery support to the Financial Planning Office. Currently, DTSC oversees approximately 1,800 sites, or only 1 percent of the estimated 200,000 undiscovered contamination sites in California. Additionally, 15,000 known contaminated sites need assessment and potential cleanup, including 8,600 dry cleaner sites whose chemical legacy can threaten groundwater and people in nearby structures.

Nearly a third of people in California live less than a mile from a cleanup site DTSC oversees. Forty-six percent of these sites are in environmental justice communities. The Cleanup Program revitalizes communities by working with developers to ensure properties are safe to build on. For example:

- The Sacramento Railyards cleanup, the largest infill project west of the Mississippi, will yield thousands of housing units, a medical complex, and a Major League Soccer stadium in California's capital.
- Cleaning up 53 acres in Carson, a disadvantaged Los Angeles community, will create a residential and commercial hub. The Porsche Experience Center, which opened in 2016, has already generated $45.5 million in economic output with an estimated 50,000 annual visitors.
- Cleaning up 21 acres in Watts will help revitalize another environmental justice community, creating up to 1,800 housing units, including as many as 700 public housing units and 700 affordable rental units. This site is now home to fresh meats and poultry, a much-needed option in a designated urban food desert.

The Cleanup Program delivers strong and sustainable economies. According to U.S. EPA, 22,987 people worked at businesses on 39 Superfund sites, creating $2.5 billion in worker income. Brownfield cleanups increase residential property values up to 11.5 percent, aiding local governments. A study of brownfield developments shows up to a 57 percent reduction in vehicle miles traveled compared to previously undeveloped areas, thereby lowering emissions.

Workload Analysis Findings

In FY 2018-19, the Cleanup Program operated with a budget of approximately $113 million (excluding the Exide cleanup) and with 342.6 positions.[12] Sixty-nine percent of staff time was focused on project management and technical support, including oversight of investigations and cleanups, review and application of statutory requirements, public and local government engagement, review and approval of technical documents, and technical training. The remaining staff time was spent on mission-critical administrative activities and training, including daily program operations, maintenance of several databases, data analytics, staff meetings, budget management and development, strategic planning, and web content management.

In FY 2018-19, the Cleanup Program met or exceeded metrics for site investigations and selecting and initiating cleanup, actively worked on 1,756 contaminated sites, and completed 161 cleanup projects. They also cleared sites for residential, commercial, or industrial reuse, streamlined decision-making on brownfield projects, made significant improvements to our cost recovery program, and reorganized the program structure to better align resources with needs.

[12] Of the 342.6 positions authorized, the Workload Analysis includes 337.6 positions. Unfunded positions and executive office positions were not included in the analysis.

Cleanup Program Service Levels

By increasing its service levels, the Cleanup Program could remediate more sites and return them to safe productive use.

The Cleanup Program is not resourced to support a site discovery program to identify additional sites that may threaten public health or the extent of the threats they pose. This discovery is a vital first step to initiate needed cleanup work that can help to revitalize communities, spur housing development and economic growth, and protect drinking water supplies. Without additional funding, DTSC will be unable to address thousands of abandoned sites adversely impacting communities across the state.

Three scalable options that demonstrate the impact a site discovery program could have with an infusion of resources were analyzed. The three scenarios for expanding the program summarized below are conservative estimates of the resources needed.

Program Area	Activities	Additional Positions Gap	Cost of Additional Resources
Cleanup Scenario 1	50 site discoveries and 63 site initiation actions	55	$9.9 million
Cleanup Scenario 2	150 site discoveries and 130 site initiation actions	114	$20.5 million
Cleanup Scenario 3	300 site discoveries and 255 site initiation actions	195	$35.1 million

Additional Costs	Contracts	Support Positions Resources
Cleanup Scenario 1	$28.3 million	$5.3 million (39 support positions)
Cleanup Scenario 2	$49 million	$11.1 million (77 positions)
Cleanup Scenario 3	$83 million	$20.1 million (140 positions)

	Program, Support Positions, and Contracts	% Increase in Program Budget	% Increase in DTSC Budget
Cleanup Scenario 1	$43.5 million	30.5%	13%
Cleanup Scenario 2	$80.6 million	56.6%	24%
Cleanup Scenario 3	$138.2 million	96.9%	42%

In addition to the identified resources for each cleanup scenario, this Workload Analysis includes an additional complement of support service positions and contract dollars. However, it does not include the actual cleanup costs for contamination identified with these resources. The increase in Cleanup Program resources would require a 32, 59, or 100 percent increase above the FY 2019-20 program funding level of $142.6 million (including the Lead-Acid Battery Recycling Facility Investigation and Cleanup Program), and together with the support services and contracts would represent an increase of 13, 24, or 42 percent in budget authority for the Department.

This analysis represents possible service levels for site discovery but does not reflect all resource limitations impacting the Cleanup Program. The focus is on site discovery and cleanup that revitalizes communities, provides opportunities for new housing, and cleans up drinking water, all of which aligns with Governor Newsom's priorities.

The estimated contract costs for the three service levels proposed would implement an investigation program consisting only of the initial site investigation and some limited cleanup activities under Scenarios 1, 2, or 3. These estimates are for the initial work (i.e., for years one and two after the Department plans and contracts for needed work). Based on assumptions about the number of sites that will need additional work, DTSC estimates the costs for each scenario would rise by 50 percent in year four, as investigation becomes more in-depth and cleanups move into the actual construction or implementation phase of remediation strategies. However, if the assumptions underestimate the needs for longer-term investigations of extremely complex sites or the number of sites that need cleanups, then the need for contract resources would similarly exceed the estimated rate of escalation.

Modernizing Technology Infrastructure

The Office of Environmental Information Management

Included in this Executive Summary is a description of the resource gap related to information technology infrastructure and security. While not considered a core program, DTSC's Office of Environmental Information Management (OEIM) has conducted two workload analyses in the past five years, which provide the basis for estimating the resources discussed here. Both analyses concluded that OEIM is significantly under-resourced to support DTSC and to adequately respond to cybersecurity threats, which are becoming increasingly common in the public sector.

OEIM was established to deliver information management and technology resources and services, leverage common solutions, and provide a secure infrastructure throughout the Department to provide DTSC business and administrative programs with the tools and services they need to achieve strategic priorities.

OEIM is charged with delivering on-time, high-quality, and secure digital services to DTSC's business and administrative programs. This includes all aspects of information technology, information management,

and telecommunications that support DTSC's mission. OEIM's scope of technology services and support includes environmental management systems, business applications, data management, desktop tools, email, internet access, phones, web platform, information security, and application development services. OEIM also collaborates with CalEPA and its departments to achieve efficiencies and cost savings by leveraging shared services, open data partnerships, and geographic information system services.

In addition, OEIM performs the business operations functions associated with issuance of hazardous waste generator and handler identification numbers required under state and federal law. Activities under the hazardous waste applications scope include adoption of the federal e-Manifest rule and system, Hazardous Waste Tracking System application support, hazardous waste manifest processing, manifest corrections, call center support, registration, Electronic Verification Questionnaire system support, manifest fee assessment and collection, online payment processing, and annual/biennial hazardous waste reports.

Emerging technology trends cannot be ignored as DTSC expands operations and our mission to protect the environment. Data-driven decisions are imperative, and today DTSC's data and analytics infrastructure is distributed, disparate, antiquated, and lacks governance. DTSC must modernize its data management and governance infrastructure to ensure programs can efficiently, effectively, and safely deliver their missions through data-driven decisions.

Enhancing DTSC's IT security systems and modernizing legacy systems is essential. DTSC has maintained the status quo by prolonging the life of our legacy systems and implementing work-arounds. However, continuing to do so, on increasingly out-of-date technologies, will hinder the organization's productivity and future growth. It will limit DTSC's ability to adapt to change and leave us increasingly exposed to data security threats. Some of the many benefits that will come from modernizing DTSC's information technology include:

- Reducing Information security noncompliance and remediating continued exposure to security risks and threats: older systems no longer benefit from security patches and fixes as they are out of their service life span.
- Increasing systems availability and stability by using modern platforms with better redundancy and readily support services.
- Increasing transparency and public-private partnerships by enabling stakeholders to easily access, utilize, and share DTSC information.
- Providing flexible systems that adapt to new requirements, mandates, and efficiencies.
- Improving internal and external system user experience by introducing new, easy-to-use functions and features that streamline processes and improve responsiveness.
- Utilizing modern integrated platforms that allow systems to talk to each other and share information to increase efficiencies and data quality, and enable more fluid interactions based on real-time data.
- Increasing staff productivity by reducing application incidents (down time), improving functionality, and reducing redundant manual processes to better serve our stakeholders and give them confidence in our ability to maintain secure, confidential systems.

Currently, DTSC has over 20 legacy systems that require modernization. These systems are vulnerable to increasing security threats, which puts the Department and the state at risk. DTSC's OEIM is focused on migrating the Department's outdated, non-supportable platforms to ones that will strengthen security and better support legal work (e.g., discovery, Public Record Act requests, and case tracking). Innovative environmental technology can contribute to accelerating cleanup, reducing the amount of contaminated soil that becomes hazardous waste, and mitigating climate and pollution impacts to communities living near cleanup sites.

Modernized solutions and services will require that the technology enterprise be secured between local infrastructure and cloud services. These digital transformations will result in increased cybersecurity risks to the enterprise, and additional resources will be needed to protect DTSC information and infrastructure assets.

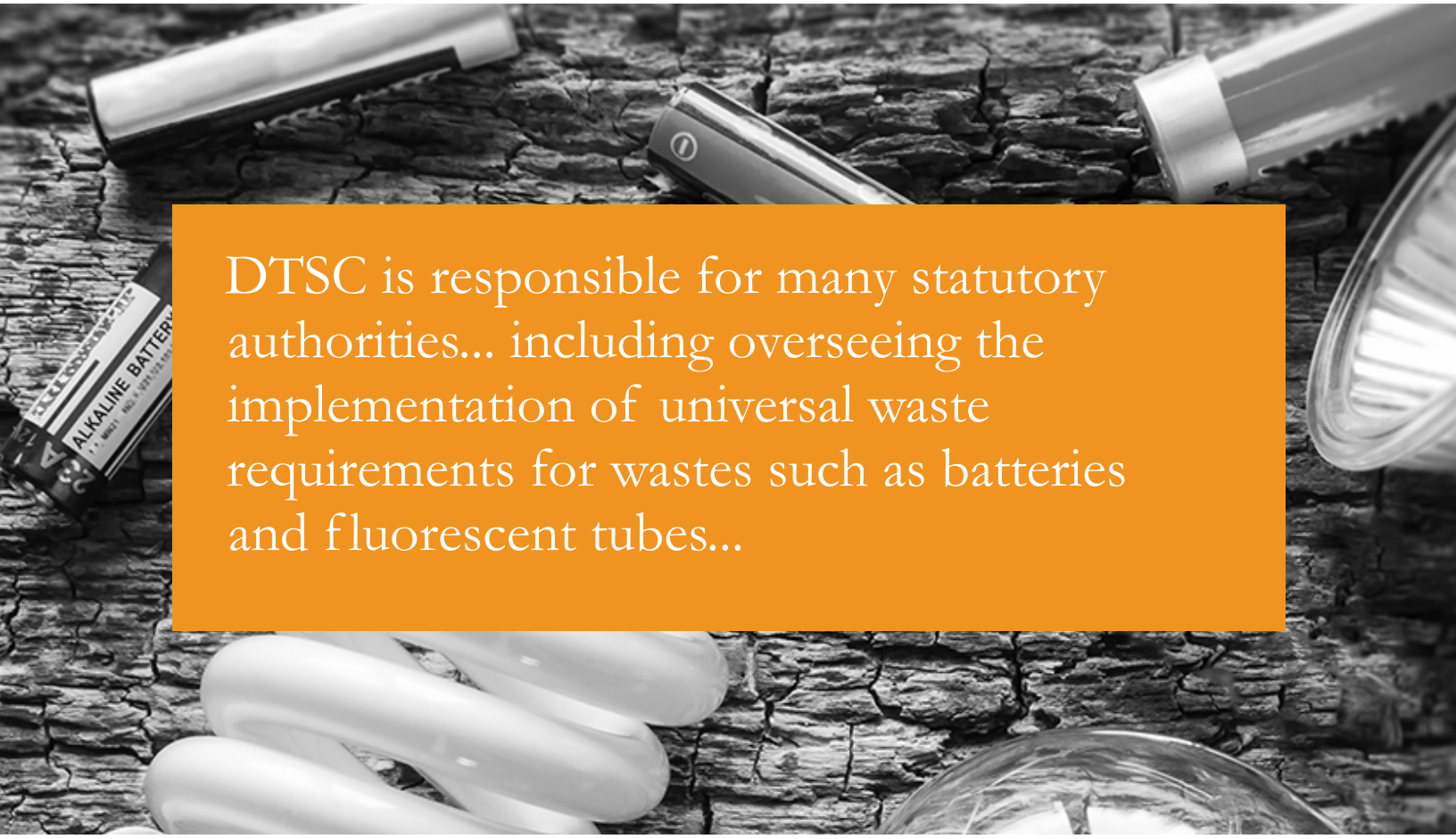
In FY 2019-20, OEIM operated with a budget of $16.2 million and 77 IT specialists, associates, technicians, and support staff performing complex and specialized functions. With those resources, OEIM supported 33 IT projects, 14 IT contracts, and 200 IT purchases. The Business Operations Unit issued and/or updated 12,088 Hazardous Waste ID Numbers, responded to 34,023 calls, and processed 608 transporter applications.

DTSC is not sufficiently resourced to update its legacy systems, adequately manage data, and provide adequate security for information systems. To address these issues, OEIM would require an increase of 18.6 positions and $20.9 million in its operating budget, which includes an estimated $15 million in contracts for system development, and $3.3 million annually for ongoing maintenance and operations. For any additional work in this area, DTSC would work with the California Department of Technology to refine the contract estimates for system development and maintenance.

As DTSC core programs augment resources to address deficiencies identified in this Executive Summary and the number of regulatory activities rise, OEIM's workload will increase commensurate with those additional resources.

Additional Unfunded and Underfunded Activities

DTSC is responsible for many statutory authorities it has been provided over the years, subject to resource availability, but which it does not currently have resources to implement. These authorities include the preparation and regular updating of a State Hazardous Waste Management Plan and other hazardous waste-related responsibilities, including overseeing the implementation of universal waste requirements for wastes such as batteries and fluorescent tubes, targeted enforcement initiatives



DTSC is responsible for many statutory authorities... including overseeing the implementation of universal waste requirements for wastes such as batteries and fluorescent tubes...

such as those conducted in environmental justice communities, and the regular evaluation and updating of California's hazardous waste identification criteria to ensure they continue to protect all Californians and California's unique environment.

Over the years, the Legislature also has given DTSC authority over nearly a dozen products that contain toxic materials—mostly bans or restrictions. But the current funding structure does not provide sufficient resources to implement the activities necessary to fully utilize these authorities. As a result, manufacturers, distributors, suppliers, and retailers are not being sufficiently monitored with enforcement as needed. Currently, unfunded activities include enforcing several product-related authorities, such as the Metal-Containing Jewelry law and Toxics in Packaging Prevention Act.

When the hazardous waste control law was established, the Department of Health Services (DHS, the predecessor of DTSC) was mandated to develop criteria and guidelines for the identification of hazardous wastes and extremely hazardous wastes. This requirement still exists in DTSC's authorizing statutes. DHS adopted the existing hazardous waste criteria in 1985. These criteria have remained largely the same since that time, even though the science of toxicology, and the understanding of the fate and transport of chemicals in the environment, has evolved. Due to competing priorities and a lack of resources, DTSC no longer has the capacity to evaluate its existing criteria to determine whether the criteria, or established thresholds, are sufficiently protective or need to be updated to reflect current scientific information. DTSC also does not have the capacity or resources to analyze new or previously

unregulated wastes, or to evaluate chemicals that are now being discovered as environmental or drinking water contaminants, their relative contribution from wastes and waste management, and to determine whether to include those wastes or chemicals in the hazardous waste identification criteria, or the concentrations or limits at which they should be regulated as hazardous waste.

DTSC is also authorized to participate in the California Biomonitoring Program, a collaborative effort among DTSC, the Office of Environmental Health Hazard Assessment, and the California Department of Public Health. DTSC's Environmental Chemistry Laboratory is tasked with measuring several targeted classes of persistent chemicals and identifying new, "unknown" chemicals. Biomonitoring provides data on temporal, demographic, and geographic trends and links to health outcomes. The data are used to identify chemicals for pollution prevention, regulation or deregulation, and measure the efficacy of California's chemical regulatory programs, serving as the ultimate performance indicator for regulatory interventions. As the enacting legislation stated, California is an established leader in health promotion, health policy, and health care delivery and response, and should encourage and fund this research, which will contribute to the health and well-being of millions of people.

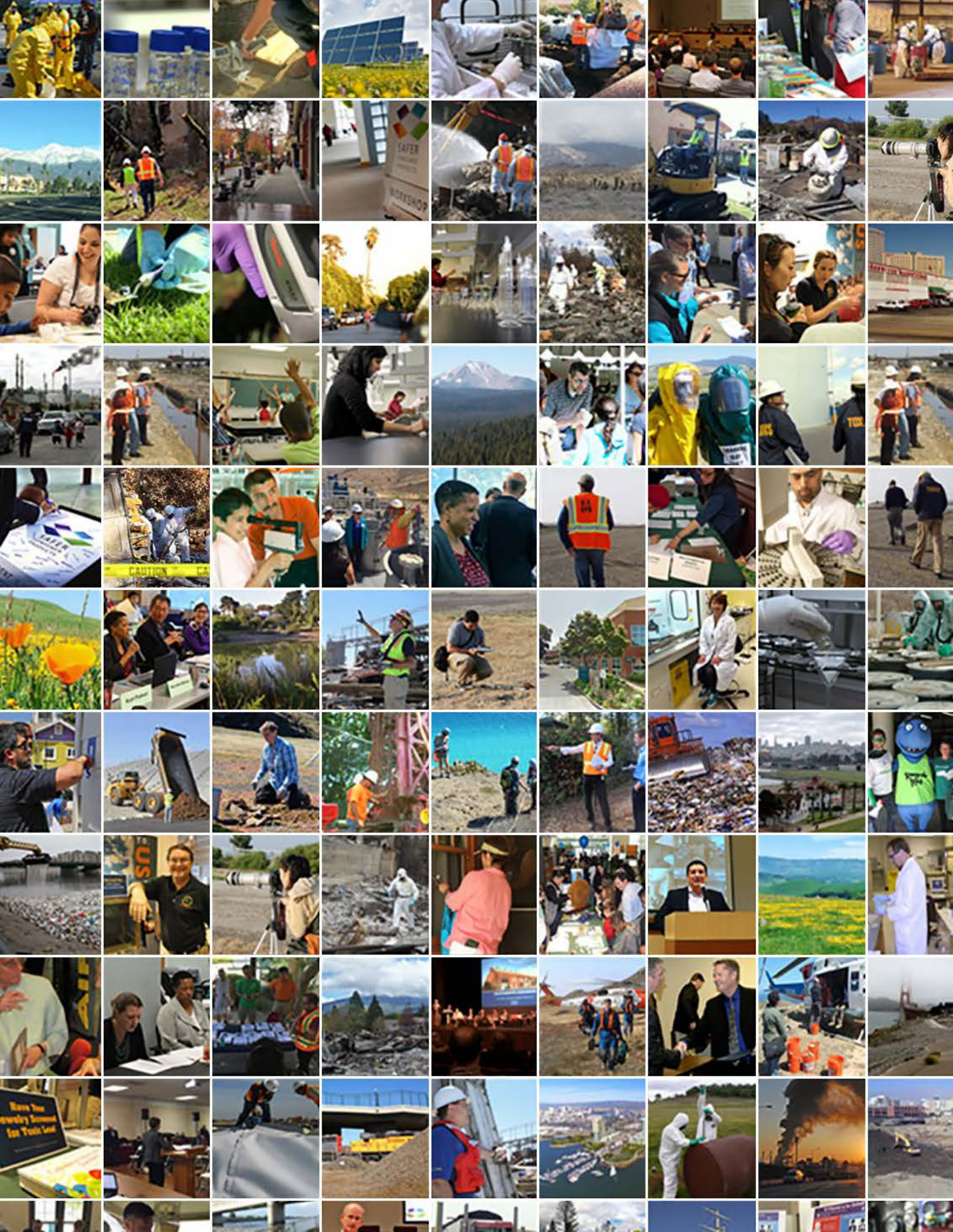
Conclusion

Through the Governor's FY 2021-22 Budget, the Administration has proposed an aggressive and comprehensive approach to DTSC's chronic resource challenges. The Budget proposes to streamline DTSC's fee structure and to ensure DTSC's current service levels have a sustainable funding source for the future. It includes provisions for a board that will provide greater transparency and accountability for DTSC's programs and services. Finally, with the inclusion of $300 million in one-time funding for the Site Mitigation and Restoration Program, DTSC can significantly accelerate cleaning up orphan sites located throughout the state, provide a grant program that incentivizes redevelopment of brownfields, and provide skills and employment opportunities for community members most impacted by the impacts of toxic substances. This one-time investment cannot, however, take the place of longer-term reform.

DTSC's Workload Analysis supports the Administration's comprehensive fee and governance reform package. It provides information crucial to ensuring a common understanding of DTSC's effective use of its current resources and baseline data for discussion of future service levels and funding sources.

It identifies key areas where DTSC is not resourced to deliver crucial services to protect people, communities, and the environment from toxic harm. With more resources, DTSC would be able to investigate more contaminated orphan sites across California, deter more violations of HWCLs and hold more violators accountable, and proactively reward industry innovation rather than reacting to exposure to harmful chemicals after it's already occurred. The Department could also modernize its IT infrastructure, maintain its RCRA authorization, and provide sufficient support services across all programs. Providing a Department that is appropriately resourced to carry out its mission, complemented by a transparent board structure, is foundational to the Governor's vision of a California for All, where everyone has the opportunity to thrive in healthy communities. Thoughtful discussion about DTSC's levels of service will strengthen the state's ability to protect all people, especially those in vulnerable communities, and the environment from toxic harm. In combination with the Administration's bold proposal, policy and fiscal reform will modernize the Department so that it can be accountable to all Californians and can carry out its mission in a transparent way.

DTSC's work is vital to achieving the Administration's vison of a California for All, where every person can prosper, live in a healthy environment, and enjoy California's beautiful and diverse landscape.



Department of Toxic Substances Control

https://dtsc.ca.gov