



## **Improving the Ventura County Forensic Services Bureau's DUID testing program**

Prepared by Ventura County Forensic Services Bureau  
for California Highway Patrol (CHP) Toxicology: Crime Laboratories FY 2024/2026

**Primary Contact: Fabiola Maria Fabiola Nunes-Daniel**



## Opportunity Details

### Opportunity Information

Title

Toxicology: Crime Laboratories FY 2024/2026

Description

Toxicology: Crime Laboratory grants shall be in direct support of grant-funded Project activities that aide in the enforcement of laws related to driving under the influence of alcohol and other drugs (DUI/DUID), including cannabis and cannabis products.

Awarding Agency Name

California Highway Patrol

Agency Contact Name

Cannabis Grants Unit (CGU)

Agency Contact Phone

916-843-4360

Agency Contact Email

CGUGrants@chp.ca.gov

Fund Activity Categories

Science and Technology and Other Research and Development

Opportunity Manager

Cannabis Grants Unit (CGU)

Opportunity Posted Date

1/9/2024

Public Link

<https://www.gotomygrants.com/Public/Opportunities/Details/5ba32f5d-2d96-4721-bb05-82eadd6fe98e>

Is Published

Yes

### Funding Information

Funding Sources

State

Funding Source Description

With the passage of Proposition 64 in 2016, The Control, Regulate, and Tax Adult Use Marijuana Act (AUMA), California voters mandated the state to set aside funding for the CHP to provide grants to local governments and Qualified Nonprofit Organizations for the education, prevention, and enforcement of impaired driving laws pursuant to Section 34019 (f)(3)(B) Revenue and Taxation Code (RTC).

Funding Restrictions

State Agencies/Departments, please refer to Section 34019 (f)(3)(B) RTC and California Code of Regulations, Title 13, Division 2, Chapter 13, for additional information.

### Award Information

Award Range

\$2,000,000.00 Ceiling



## Improving the Ventura County Forensic Services Bureau's DUID testing program

Ventura County Forensic Services Bureau

### Award Period

07/01/2024 - 06/30/2026

### Award Type

Competitive

### Indirect Costs Allowed

No

### Matching Requirement

No

## Submission Information

### Submission Timeline Type

One Time

### Submission Timeline Additional Information

GRANT APPLICATIONS ARE DUE FEBRUARY 23, 2024, BY 5:00 PM PST

Grant Applicants are advised to ask submittal questions well before the deadline. The Cannabis Grants Unit cannot guarantee an immediate response and the Grant Management System (GMS) will automatically close at 5:00 PM PST. Once a Grant Application is submitted through the GMS, Grant Applicants may not add, edit, or delete any Grant Application information.

## Question Submission Information

### Question Submission Email Address

CGUGrants@chp.ca.gov

## Eligibility Information

### Eligibility Type

Public

### Additional Eligibility Information

Local Government, which includes California County and/or City Crime Laboratories

## Additional Information

### Additional Information URL

<https://www.chp.ca.gov/programs-services/programs/cannabis-tax-fund-grant-program>

## Award Administration Information

### State Award Notices

Awards will be announced in May and June 2024.

### Administrative and National Policy Requirements

The California Highway Patrol (CHP) adopted regulations within Title 13 of the California Code of Regulations (CCR), Division 2, by adding Chapter 13, which govern the CHP Cannabis Tax Fund Grant Program.

These regulations outline:

- \* Grant Provisions
- \* Grant Project Types
- \* Specific Grant Application Requirements
- \* Grant Evaluation Criteria



## **Improving the Ventura County Forensic Services Bureau's DUID testing program**

Ventura County Forensic Services Bureau

\* Necessary Administrative Procedures for the Program.

Regulations can be found at:

<https://www.chp.ca.gov/programs-services/programs/cannabis-tax-fund-grant-program/program-regulations>

### Reporting

Quarterly Reporting is required and due within 14 calendar days after the close of each quarter.

#### FY 2024/2025

Year One, Quarter One (Y1 Q1): July 1 - September 30

Year One, Quarter Two (Y1 Q2): October 1 - December 31

Year One, Quarter Three (Y1 Q3): January 1 - March 31

Year One, Quarter Four (Y1 Q4): April 1 - June 30

#### FY 2025/2026

Year Two, Quarter One (Y2 Q1): July 1 - September 30

Year Two, Quarter Two (Y2 Q2): October 1 - December 31

Year Two, Quarter Three (Y2 Q3): January 1 - March 31

Year Two, Quarter Four (Y2 Q4): April 1 - June 30

### Other Information

Please ensure your Organization/Agency has the capability to electronically sign required documents (ex: Grant Agreement).



## **Project Information**

### **Application Information**

Application Name

Improving the Ventura County Forensic Services Bureau's DUID testing program

Award Requested

\$1,647,625.93

Total Award Budget

\$1,647,625.93

### **Primary Contact Information**

Name

Fabiola Maria Fabiola Nunes-Daniel

Email Address

fabiola.daniel@ventura.org

Address

800 S. Victoria Ave.  
Ventura, California 93009

Phone Number

(805) 477-7254



## Project Description

### 1. Organization/Agency Representatives

Organization/Agency Section/Unit (subdivision) to administer the Grant Agreement.

Ventura County Forensic Services Bureau

#### Organization/Agency Representative

**Complete the following fields with the appropriate Organization/Agency representatives for the Grant Agreement. The completed fields will auto-populate in the Grant Agreement, so please ensure each individual will be the point of contact throughout the Project Performance Period.**

- **The Authorized Official is authorized to enter into a Grant Agreement with signing authority**
- **The Authorized Financial Contact maintains financial records, documentation, and recipient of warrant**
- **The Administrative Contact is responsible for day-to-day administration**

Authorized Official Name (first and last)

James Fryhoff

Authorized Official Title

Sheriff

Authorized Official Address (street, city, state, zip code)

800 S. Victoria Ave., Ventura, CA, 93009

Official Address to Receive Reimbursement Payment - MUST MATCH FISCAL FORM (street, city, state, zip code)

800 S. Victoria Ave., Ventura, CA, 93009

Authorized Official Phone Number (with area code)

8056542381

Authorized Official Email Address

James.Fryhoff@ventura.org

Authorized Financial Contact Name (first and last)

Graciela Zamora

Authorized Financial Contact Title

Program Administrator

Authorized Financial Contact Phone Number (with area code)

805-662-6726

Authorized Financial Contact Email Address

Graciela.Zamora@ventura.org

Administrative Contact Name (first and last)

Fabiola N Nunes-Daniel

Administrative Contact Title

Supervising Forensic Scientist

Administrative Contact Phone Number (with area code)

8054777254



**Improving the Ventura County Forensic Services Bureau's DUID testing program**  
Ventura County Forensic Services Bureau

Administrative Contact Email Address

[fabiola.daniel@ventura.org](mailto:fabiola.daniel@ventura.org)



## **2. Senate/Assembly/Congressional/County Information**

To determine the State Senate District(s), State Assembly District(s), and California Congressional District(s), copy and paste the below URL in your browser and search:

<https://gis.data.ca.gov/maps/CDEGIS::legislative-districts-in-california-2/about>

Select one or more State Senate District(s) where the proposed Project activities will occur. To make multiple selections, hold down the Ctrl key and click each one.

**State Senate 19**

Select one or more State Assembly District(s) where the proposed Project activities will occur. To make multiple selections, hold down the Ctrl key and click each one.

**State Assembly 37**

Select one or more California Congressional District(s) where the proposed Project activities will occur. To make multiple selections, hold down the Ctrl key and click each one.

**California Congressional District 26**

Select one or more California counties where the proposed Project activities will occur. To make multiple selections, hold down the Ctrl key and click each one.

**Ventura**

Number of residents (population) that your Organization/Agency serves.

**855000**





### 3. Statistical Data

Ensure the responses below align with the statistical data provided within the Grant Application. If a question is not applicable, please input "0" or "N/A".

Approximately how many qualified analysts are conducting driving under the influence (DUI)/driving under the influence of drugs (DUID) testing at your laboratory?

	Monthly Average	Yearly Average
Number of Analysts	7	7

Approximately how many DUID cases does your laboratory analyze for only drugs?

	Monthly Average	Yearly Average
Number of Cases	20	235

Approximately how many DUI cases does your laboratory analyze for only alcohol?

	Monthly Average	Yearly Average
Number of Cases	71	851

Approximately how many cases are tested for both alcohol and drugs?

	Monthly Average	Yearly Average
Number of Cases	34	408

What is the estimated turn-around time for case analysis?

	DUI Cases	DUID Cases	DUI/DUID Cases
Number of Days	6	32	40

What is the estimated number of backlogged DUI cases?

	Monthly Average	Yearly Average
Number of Cases	DUI (54) ; DUID (185)	DUI (652) ; DUID (2224)

Approximately how many times per year does your laboratory provide DUI/DUID-related court testimony?

	DUI Cases	DUID Cases	DUI/DUID Cases
Times Per Year	~100	~25	5 or less

Does your Organization/Agency track which samples have an associated Drug Recognition Expert (DRE) evaluation?

- ☐ Yes  
☒ No

If yes, what is the percentage?

Does your laboratory make an administrative decision to stop testing if a blood alcohol concentration (BAC) result is at or above a specific BAC?

- ☒ Yes  
☐ No



## Improving the Ventura County Forensic Services Bureau's DUID testing program

Ventura County Forensic Services Bureau

If yes, what is that BAC concentration result?

0.08 % (between 0.08 - 0.1 % if Tox is requested and drugs are suspected)

List the top 10 drugs present in your laboratory's current DUID case work (number 1-10; 1 = most prevalent). If unknown or not tracked, please provide any known information.

Methamphetamine  
Delta-9-THC  
Fentanyl  
Alprazolam  
Cocaine  
Methadone  
Lorazepam  
Diazepam  
Morphine  
Oxycodone

### Current Equipment

What equipment does your laboratory use (make/model/number of each)?

- GC/MS Agilent 7890B GC, 5977A MSD (4)
- GC/NPD/MS Agilent, 7890A GC 5975C (1)
- Agilent LC/MS/MS 6460 (1)
- Agilent LC/MS/MS 6470 (1)
- Sciex LC/MS/MS 4500 (1)
- Agilent LC-QTOF 6546 - (1) Under validation
- TECAN Screening Instrument (1)
- Agilent LC/MS/MS 6475A (1)
- Indiko Plus Drug Screen analyzer - (1)
- Headspace Gas Chromatography (HSGC) - BA section (2)

What equipment is currently needed?

New GC/MS instruments (2)

If equipment is needed, will it be able to test for Delta-9-Tetrahydrocannabinol (THC), 11-Hydroxy-THC and Carboxy-THC?

- ☐ Yes  
☒ No

If new equipment is purchased, is staff training needed?

- ☒ Yes  
☐ No

If yes, detail what training is needed.

Onsite training covering operation, maintenance, and troubleshooting provided by the vendor.

### Grant-Funded Equipment

Have previous Cannabis Tax Fund Grant Program Grant Funds been utilized to purchase equipment (an acquisition cost of at least \$5,000)?

- ☒ Yes  
☐ No

If yes, list the fiscal year of the Grant Agreement and EACH equipment item.

- FY21-23= Agilent LC-QTOF 6546, one N2 generator
- FY22-24= Agilent LCMSMS 6475A, one N2 generator
- FY22-24= Indiko Plus Drug Screen analyzer
- FY22-24= Two Resolvex Extractor A100 48
- FY22-24= One Sample Concentrator

EXAMPLE ONLY



**Improving the Ventura County Forensic Services Bureau's DUID testing program**  
Ventura County Forensic Services Bureau

FY21-23 = One LCMS, One Nitrogen Generator  
FY22-24 = One QTOF



#### **4. Project Description**

Provide a brief overview/synopsis (a paragraph) of the proposed Project. PLEASE DO NOT COPY AND PASTE TABLES IN FIELD - TYPE INFORMATION IN FIELD.

The Ventura County Sheriff's Office Forensic Services Bureau (FSB) is an internationally accredited, full-service, regional crime laboratory supporting all law enforcement agencies in Ventura County. The FSB typically processes over 13,000 cases a year and serves a population of approximately 855,000 people, including cities, unincorporated areas, and state and federal installations.

Currently, the majority of "Driving Under the Influence of Drugs" (DUID) samples submitted to the Bureau are from polydrug cases including drugs of abuse and prescription drugs, which require comprehensive testing. The problem is further compounded by the requirement for greater instrument sensitivity in order to identify such compounds within their pharmacologically active range. The goals of the project include purchasing newer GCMS instruments, validating new methods to analyze DUID samples, installing a new nitrogen generator system to supply nitrogen to all LCMSMS and LC-QTOF instruments, increasing overtime to address the backlog, and funding staff training. This will improve the service provided to local law enforcement agencies by decreasing casework turnaround times, identifying more drugs at lower levels, and training scientists to perform their job tasks independently. The objective is to assist the nineteen agencies supported by the Ventura County Forensic Services Bureau (FSB) in reducing fatalities and injuries by enforcing traffic safety laws and prosecuting DUID cases.

In 2021, Ventura County rated 12th among 58 counties of comparable size in terms of fatal and injury collisions. The use of drugs by impaired drivers remains prevalent. This trend jeopardizes the safety of our public thoroughfares and poses challenges for police officers, prosecutors, and forensic scientists in the investigation and prosecution of Driving Under the Influence of Drugs (DUID) cases.



## 5. Problem Statement & Proposed Solution

Clearly identify the problem/need (Problem Statement) in your local community, which is the reason for requesting grant funds. Then, clearly identify the Proposed Solution to address the problem/need. If applicable, provide recent and high-level statistical data that directly supports the problem/need in your local community. PLEASE DO NOT COPY AND PASTE TABLES IN FIELD - EITHER TYPE INFORMATION IN FIELD OR ATTACH DOCUMENT.

### **Problem Statement #1: Outdated instrumentation**

Over the last two years, the Toxicology Section has received an average of 1,500 "Driving Under the Influence" (DUI) and "Driving Under the Influence of Drugs" (DUID) cases every year, with approximately 650 cases involving drugs. The number of DUID cases involving polydrug use has significantly increased, and testing each case for a wide range of prescription and recreational drugs has consistently proven to be very challenging. Amphetamines are the most often used drugs by drivers in our county, followed by cannabis, fentanyl, alprazolam, and cocaine. These drugs account for more than 85 % of all drugs detected in our DUID casework. Gas chromatography mass spectrometry (GC/MS) is used by our laboratory to confirm methamphetamine, amphetamine, cocaine, and metabolites in blood. Unfortunately, our GC/MS instruments are out of date and starting to show signs of age. They lack the sensitivity required for confirming these drugs at a lower limit of quantitation, which may be necessary to detect the psychoactive compounds. Cocaine, for example, has a short half-life, and a delay in blood collection during the DUID investigation could significantly affect the drug concentration. As a result, detection at low levels is crucial for establishing recent use and supporting the symptomology and behavior observed by the arresting officer, so assisting in the prosecution of those cases. Furthermore, our current reporting limits of detection for all assays performed by GCMS is greater than the recommended by the National Safety Council's Alcohol, drugs, and Impairment Division for Tier I compounds, which include drugs such as amphetamine, methamphetamine, cocaine, and cocaethylene. Finally, due to their age, the GC/MS instruments are frequently experiencing hardware issues. One of these instruments has been removed from service owing to consistently unsatisfactory tuning results, while another narrowly meets those criteria. We paid the manufacturer last year to try to fix both instruments, but they were unable to. Because amphetamine and cocaine confirmations use different derivatizing reagents, we need two instruments to avoid contamination, which could negatively impact instrument performance. The use of a single instrument to perform both tests requires constant equipment maintenance. In the event of an instrument failure, one instrument would be used for both methods, avoiding delays while waiting for service.

**Solution:** We'd like to replace two GCMS instruments with newer models so that we can confirm different drugs at lower levels, especially cocaine and cocaethylene, while avoiding downtime. Two new instruments will also not require constant maintenance, allowing scientists to focus on other DUID activities while helping to reduce the backlog and improve turnaround time.

### **Problem Statement #2: GCMS and LCMSMS Training**

The new Toxicology scientists have never received GCMS or LCMSMS training provided by the manufacturer. They rely heavily on the experience of senior scientists to assist with maintenance and troubleshooting. Lack of familiarity in instrument operation, maintenance, and troubleshooting skills might cause problems and analysis downtime. Due to a restricted sample volume, analysis of DUID cases does not always allow for repeats, which might jeopardize case prosecution.

**Solution:** The analysts will receive onsite training from the manufacturer to learn about the complexities of instrument operation, maintenance, and troubleshooting, allowing them to build confidence and independence. Knowing how to detect hardware and/or software issues makes troubleshooting easier and decreases instrument downtime. Following the training, the analyst should be able to clearly identify a problem that necessitates a service visit and help to expedite the process by communicating effectively with the service engineer. Understanding the techniques necessary for daily, monthly, and yearly maintenance, as well as the importance of following manufacturer guidelines, can help you prevent possible issues. This training will be especially important for the section, which will lose three senior scientists this year due to retirement.

### **Problem Statement #3: Validation of new methods**

Three senior scientists in toxicology will retire this year, including two who are in charge of the majority of the section's validation. The Toxicology section still needs to validate procedures in order to enhance testing capabilities for DUID cases and better serve our community. It will take time for new scientists to have the necessary knowledge and expertise to carry out validation independently. As a result, the Bureau would like to work with an outside company that meets the same accreditation standards as our laboratory. 9-Delta Analytical is ANAB accredited and has vast expertise and experience in analytical procedures and equipment. Being ISO/IEC 17025:2015 certified ensures that new methods not only fulfill all of the accreditation standards but are also unquestionable in court.

**Solution:** 9-Delta Analytical would be responsible for validating new methods following ANSI/ASB standards, establishing the Standard Operating procedures, and training staff on the new procedures. These new confirmatory methods will help the Bureau expand its services to law enforcement agencies and aid in the prosecution of DUID cases.

### **Problem Statement #4: Consumables**

Validation Consumables are required to execute validation projects and analysis of casework. Budget constraints could prevent validation projects from being completed on schedule and can cause casework to be delayed. Even though DUID cases make up just 30 % of all cases submitted to the Toxicology section, the vast majority of confirmatory tests carried out by the section are for DUID cases, especially by LCMSMS. More than 90 % of confirmatory blood tests for amphetamines, opioids, cocaine, benzodiazepines, and cannabinoids are for DUID cases.

**Solution:** Purchase of consumables that include but are not limited to solid phase extraction (SPE) columns, solvents for extraction, solvents to prepare mobile phases for the LCMSMS instruments (including LC-QTOF), GC consumables, LC consumables, CRM



(standards), and pipette tips.

**Problem #5: Instrument service contract**

The lack of a service contract can be costly in terms of money and time. Instrument repairs without a service contract require procurement department approval and might take a month or more to finish the process. Meanwhile, the instrument is down, which affects testing and, as a result, casework turnaround time.

**Solution:** Establish a service contract with Agilent to provide preventive maintenance to Headspace Gas Chromatography (HSGC), Gas Chromatography Mass Spectrometry (GCMS), Liquid Chromatography Tandem Mass Spectrometry (LCMSMS), and Liquid Chromatography Quadrupole time of Flight (LC-QTOF) instruments as well as any service required due to issues with the instruments. The service contract will cover hardware and software problems.

**Problem #6: N2 generator system installation**

The installation of the new nitrogen generator system (Infinity XE 60), which will supply nitrogen to all LCMSMS and LC-QTOF equipment, proved to be a little more challenging than we had anticipated. Due to space constraints in the nitrogen generating room in the laboratory, part of the equipment (compressors) must be installed outside of the laboratory.

**Solution:** Following a walkthrough with the GSA project team and a PEAK representative, we selected the most suitable location for the compressors to be installed securely on the laboratory roof while being able to supply the necessary nitrogen flow to the instruments in the laboratory. The previous grant cycle covered the nitrogen generator system (Infinity XE 60), as well as part of the installation in the nitrogen generator room. We are looking for additional funding to complete the installation, which will entail adequately enclosing the compressors on the roof to protect it from the elements, as well as electrical wiring and piping.

**Problem Statement #7: Overtime**

Three senior scientists in Toxicology will retire this year, which will definitely have an impact on section workflow and, as a result, DUID casework turnaround times.

**Solution:** To alleviate the impact of the section's personnel shortage, the supervisor, scientists, and technicians can use overtime to work extra hours on DUID-related tasks such as analyzing and/or reviewing DUID batches, reducing backlog and improving turnaround times. It will also help to maintain a steady workflow for the section throughout the selection, hiring process, and training of new scientists.

**Problem Statement #8: Funding five Forensic Scientist positions (Toxicology and Blood Alcohol Sections)**

The grant scientist positions are critical for keeping the Toxicology and Blood Alcohol Sections' workloads manageable and avoiding a significant increase in the backlog, especially considering the retirement of three senior scientists in the Toxicology Section this year.

**Solution:** Funding five scientists from July 1, 2025, to June 30, 2026.

**Problem Statement #9: ABFT certification**

Toxicologists are frequently questioned in court if they have any type of certification that qualifies them as expert witnesses in toxicology. Most of the time, this is an attempt to undermine the scientists' credibility as expert witnesses. Currently, this form of certification is not required. However, we understand that having an ABFT certification will validate the Toxicology scientist as an expert in the field and will strengthen their testimony. In order to be certified, the scientist must pass a test administered by the American Board of Forensic Toxicology.

**Solution:** The Toxicology scientists currently attending the Forensic Toxicology Board Certification prep course will take the certification exam provided by the American Board of Forensic Toxicology to obtain this prestigious certification.



## 6. Performance Measures/Scope of Work

Detail EACH Project activity/item below, which will serve as your goals and objectives for the Project. For EACH goal/objective, include estimated timelines (ex: monthly, quarterly), quantitative measurements (ex: reduction of DUI/DUID by %), and justification detailing how it will enhance/support the Project. NOTE: These goals and objectives must be consistent with the Budget. PLEASE DO NOT COPY AND PASTE TABLES IN FIELD - TYPE INFORMATION IN FIELD.

### Year 1

1<sup>st</sup> Quarter: July 2024 – September 2024

- Ventura County FSB will purchase two GCMS instruments.
- Ventura County FSB will start the contract process with 9-Delta Analytical to perform method validation.
- Ventura County FSB will order consumables including SPE columns, solvents, LC consumables, GC consumables, CRM (standards), and pipette tips as needed to analyze casework and perform validations.

2<sup>nd</sup> Quarter: October 2024 - December 2024

- New instruments will be installed. Toxicology scientists will transfer validate methods to the new instrument following the ANSI-ASB standards.
- Toxicology staff will work overtime to reduce the backlog.
- Toxicology staff will continue their education by attending Agilent training.
- 9-Delta Analytical will validate a new method to confirm and/or quantify antipsychotic drugs by LC/MS/MS in blood and urine. They will provide the validation documents, write the required SOP, and train the Toxicology staff on the performance of this analysis.
- Ventura County FSB will order consumables including SPE columns, solvents, LC consumables, GC consumables, CRM (standards), and pipette tips as needed to analyze casework and perform validations.

3<sup>rd</sup> Quarter: January 2025 – March 2025

- Toxicology staff will work overtime to reduce the backlog.
- The GSA project manager will prepare a contract for installing part of the new nitrogen generating system (Infinity XE 60) on the laboratory roof, which will be presented to the CGU for approval.
- Toxicology staff will continue their education by attending Agilent training depending on the schedule.
- 9-Delta Analytical will validate a new method to confirm cocaine and metabolites by GCMS in blood and urine. They will provide the validation documents, write the required SOP, and train the Toxicology staff on the performance of this analysis.
- Ventura County FSB will order consumables including SPE columns, solvents, LC consumables, GC consumables, CRM (standards), and pipette tips as needed to analyze casework and perform validations.

4<sup>th</sup> Quarter: April 2025 – June 2025

- Toxicology staff will work overtime to reduce the backlog.
- The installation of part of the new nitrogen generating system (Infinity XE 60) will continue on the laboratory roof. It might be completed this quarter.
- Toxicology staff will continue their education by attending Agilent training depending on schedule (if any training remains).
- 9-Delta Analytical will validate a new blood method to confirm and/or quantify antidepressants and antihistamines by LC/MS/MS in blood and urine. They will provide the validation documents, write the required SOP, and train the Toxicology staff on the performance of this analysis.
- Ventura County FSB will order consumables including SPE columns, solvents, LC consumables, GC consumables, CRM (standards), and pipette tips as needed to analyze casework and perform validations.

### Year 2

1<sup>st</sup> Quarter: July 2025 – September 2025





## Improving the Ventura County Forensic Services Bureau's DUID testing program

Ventura County Forensic Services Bureau

- Toxicology staff will work overtime to reduce the backlog.
- 9-Delta Analytical will validate a new blood method to confirm and/or quantify barbiturates by LC/MS/MS in blood and urine. They will provide the validation documents, write the required SOP, and train the Toxicology staff on the performance of this analysis.
- Ventura County FSB will order consumables including SPE columns, solvents, LC consumables, GC consumables, CRM (standards) and pipette tips as needed to analyze casework and perform validations.
- The scientists on the grant will continue to work on DUID-related tasks in the Toxicology and Blood Alcohol Sections' to maintain manageable workloads and avoid a significant increase in the backlog.

2<sup>nd</sup> Quarter: October 2025 - December 2025

- Toxicology staff will work overtime to reduce the backlog.
- Ventura County FSB will order consumables including SPE columns, solvents, LC consumables, GC consumables, CRM (standards) and pipette tips as needed to analyze casework and perform validations.
- The scientists on the grant will continue to work on DUID-related tasks in the Toxicology and Blood Alcohol Sections' to maintain manageable workloads and avoid a significant increase in the backlog.

3<sup>rd</sup> Quarter: January 2026 – March 2026

- Toxicology staff will work overtime to reduce the backlog.
- Ventura County FSB will order consumables including SPE columns, solvents, LC consumables, GC consumables, CRM (standards) and pipette tips as needed to analyze casework and perform validations.
- The scientists on the grant will continue to work on DUID-related tasks in the Toxicology and Blood Alcohol Sections' to maintain manageable workloads and avoid a significant increase in the backlog.

4<sup>th</sup> Quarter: April 2026 – June 2026

- Toxicology staff will work overtime to reduce the backlog.
- Ventura County FSB will order consumables including SPE columns, solvents, LC consumables, GC consumables, CRM (standards) and pipette tips as needed to analyze casework and perform validations.
- The scientists on the grant will continue to work on DUID-related tasks in the Toxicology and Blood Alcohol Sections' to maintain manageable workloads and avoid a significant increase in the backlog.

July 2026 - The new nitrogen generating system (Infinity XE 60) will be installed and functional and the Toxicology section instrument room will be suitable to house all the instruments required to provide a broader routine testing panel for DUID cases. In addition, the room will be comfortable for the analysts to spend the necessary time to perform data analysis. The Toxicology Section will expand its testing capabilities to support the investigation and prosecution of DUID cases. Then, the Toxicology staff will provide training to law enforcement officers and prosecutors about the new drugs to enhance their ability to recognize impairment by these drugs and present their cases. The Toxicology staff will analyze backlogged DUID cases thus reducing the turnaround time for submitted cases.





## **7. Project Performance Evaluation**

Provide the method of evaluation to show Project effectiveness and positive impact(s) on the community. These strategies shall include captured quantitative/qualitative data and a communication plan to share Project results with both internal and external stakeholders. PLEASE DO NOT COPY AND PASTE TABLES IN FIELD - TYPE INFORMATION IN FIELD.

BEAST reports will be prepared and submitted during the reporting period to demonstrate the progress in toxicology testing capacity. Statistical data from BEAST (LIMS) will also be collected on a monthly basis to illustrate improvements in DUID case turnaround times and backlog reduction.



## **8. Program Sustainability**

Describe the plan for reducing reliance on future grant funding. Include a summary and timeframe to continue efforts when grant funds are either not available or significantly reduced. PLEASE DO NOT COPY AND PASTE TABLES IN FIELD - TYPE INFORMATION IN FIELD.

When this grant period expires, the Toxicology Section will have validated new methods that will be used routinely in the analysis of DUID cases. The scientist will have gained knowledge and expertise with the instruments, enabling them to operate independently. The ABFT accreditation will increase the scientists' confidence and trustworthiness in court. After completing training and reducing the backlog, the scientists' workload will be more manageable, and the improvement of casework turnaround time will be regularly tracked in BEAST.



## **9. Administrative Support**

Describe the administrative support, including the Organization/Agency's grant experience, personnel, and physical resources needed to successfully complete the Project within the Project Performance Period. PLEASE DO NOT COPY AND PASTE TABLES IN FIELD - TYPE INFORMATION IN FIELD.

The Ventura County Sheriff's Office Forensic Services Bureau (FSB) is an internationally accredited, full-service regional crime laboratory that provides support to all Ventura County law enforcement agencies. The Bureau has extensive expertise in grant applications and administration.

Michael Parigian – Bureau Manager. Mr. Parigian is responsible for budget tracking and reporting and has over 37 years of experience in forensic science, including more than twenty years as an Assistant Forensic Sciences Laboratory Manager. His duties include managing the bureau budget as well as oversight and preparation of reports for grants.

Program Administrator/Accountant, Responsible for managing the financial portion of grants, which includes entering all grant related transactions such as cost accounting, budget, in the financial system. Preparation and submission of quarterly financial reports, and requests for reimbursements.

Fabiola Nunes-Daniel, Ph.D. – Supervising Forensic Scientist. Dr. Nunes-Daniel is responsible for the supervision of two laboratory technicians and nine forensic scientists in the Toxicology Section. Half of the staff have been with the Bureau for more than 15 years and have the expertise and experience required to fulfill their duties. Furthermore, they participate in continuous education and are well-versed in a wide range of methodology and instruments. Dr. Nunes-Daniel, also a seasoned examiner, has over 20 years of experience in toxicology.



## 10. Other Grant Programs

### Impaired Driving Enforcement Funding

Has your Organization/Agency previously received grant funding for impaired driving enforcement?

- ☒ Yes  
☐ No

If yes, detail the outcome. PLEASE DO NOT COPY AND PASTE TABLES IN FIELD - TYPE INFORMATION IN FIELD.

The previous CHP Cannabis grant funds has allowed the Toxicology section to acquire new and improved instruments. With the addition of positions, overtime, and consumables, Toxicology was also able to validate four new methods to be used in the analysis of DUID cases, including a new isomers cannabinoids procedure that has been able to detect delta-8 and delta-9 THC compounds and metabolites in one specimen. This is a significant accomplishment since prior to this award, the Toxicology section had been unable to complete the analysis of those DUID cases. Furthermore, the section validated a new benzodiazepines confirmatory method, which has been particularly useful in the prosecution of DUID cases. Prior to the award, such DUID cases had to be sent to a reference laboratory upon request from the District Attorney's Office.

### Other Grant Programs

Has or will your Organization/Agency submit a proposal to another grant program for this Project (ex: funds for the same components as this Project, or for similar/related components that will be completed during the same time period as this Project)?

- ☒ Yes  
☐ No

If yes, detail the granting Organization/Agency. In addition, clearly distinguish which tasks would be funded by the CTFGP and which tasks would be funded by another Organization/Agency. PLEASE DO NOT COPY AND PASTE TABLES IN FIELD - TYPE INFORMATION IN FIELD.

OTS grant October 2024 - September 2025

- Consumables including SPE columns, solvents, LC consumables, GC consumables, CRM (standards), and pipette tips as needed to analyze casework and perform validations.
- Overtime to reduce the backlog.

Are any personnel dedicated to this Project funded by other sources/grants?

- ☐ Yes  
☒ No

If yes, detail which source/grant. PLEASE DO NOT COPY AND PASTE TABLES IN FIELD - TYPE INFORMATION IN FIELD.

NA



## 11. Terms and Conditions

### By submitting your Grant Application, you agree to the following Terms and Conditions:

I certify, under penalty of perjury, that the information I entered in this Grant Application is true and complete to the best of my knowledge. I further understand that any false, incomplete, or incorrect statements may result in my disqualification from the grant process or dismissal from receiving grants funded by the California Highway Patrol (CHP), Cannabis Tax Fund Grant Program. I authorize the California Highway Patrol, Cannabis Grants Unit (CGU), to investigate referenced documents or other documents submitted to the program to check the accuracy of the information provided.

I agree with the Request for Application, the above Terms and Conditions, and the California Code of Regulations, Title 13, Division 2, Chapter 13, Sections 1890.00 through 1890.27.

☒ I Agree

When using the GMS (AmpliFund), I authorize the state to take my requested action by an electronic means and authorize the state to accept the combination of my User ID and password in lieu of my written signature.

☒ I Agree

My password is unique to me and is to remain confidential. I will not allow other individuals to use my User ID and password to access the GMS (AmpliFund).

☒ I Agree

It is my responsibility to maintain the confidentiality of GMS (AmpliFund) information.

☒ I Agree

Once I submit the Grant Application, I am unable to add, edit, or delete any Grant Application information.

☒ I Agree

Confidentiality Notice: All documents submitted as a part of the Cannabis Tax Fund Grant Program Grant Application are public documents and may be subject to a request pursuant to the California Public Records Act. The CHP, CGU, cannot ensure the confidentiality of any information submitted in or with this Grant Application (Gov. Code, § 6250 et seq.).

☒ I Agree

Generated Income Disclaimer: There will be no program income generated from this grant. Nothing in this Grant Application shall be interpreted as a requirement, formal or informal, that a particular law enforcement officer issue a specified or predetermined number of citations, in pursuance of the goals and objectives. Although special emphasis will be placed upon violations specific to this Grant Application, appropriate enforcement action will be taken for all observed violations.

☒ I Agree

### Financial Information System for California Government Agency Taxpayer ID (FI\$Cal Form)

A FI\$Cal Form is required for reimbursement. If the Grant Applicant does not have a completed FI\$Cal Form at final Grant Application submission time, the Grant Applicant may submit the completed FI\$Cal Form via email to CGU prior to execution of the Grant Agreement. NOTE: The "Remit-To Address" on the FI\$Cal Form MUST match the "Official Address to Receive Reimbursement Payment" you entered in Form #1. Organization/Agency Representative. This address shall be the official address on file with FI\$Cal and the State Controller's Office (SCO) to receive warrants (Reimbursement Request Payments). Forms are located on the Cannabis Tax Fund Grant Program's website at <https://www.chp.ca.gov/programs-services/programs/cannabis-tax-fund-grant-program>.

☒ I Agree

FI\$Cal Form

### City Council or County Resolution

A county, city, district, or other public body shall provide a copy of a resolution, order, motion, or ordinance of local governing body, which by law has the authority to enter into an agreement authorizing execution of a Grant Agreement. If the Grant Applicant does not have a signed resolution at final Grant Application submission time, the Grant Applicant may submit a signed resolution via email to CGU prior to execution of the Grant Agreement. NOTE: The resolution MUST explicitly state the Organization/Agency has delegated authority to enter into a Grant Agreement for the requested amount.

☒ I Agree



**Improving the Ventura County Forensic Services Bureau's DUID testing program**  
Ventura County Forensic Services Bureau



Improving the Ventura County Forensic Services Bureau's DUID testing program  
Ventura County Forensic Services Bureau

## Budget

### Proposed Budget Summary

#### Expense Budget

	Grant Funded	Total Budgeted
<b>Personnel</b>		
Forensic Scientist - Benefits	\$53,946.23	\$53,946.23
Forensic Scientist - Benefits	\$53,946.23	\$53,946.23
Forensic Scientist - Benefits	\$54,620.58	\$54,620.58
Forensic Scientist - Benefits	\$53,946.23	\$53,946.23
Forensic Scientist - Salary	\$79,679.86	\$79,679.86
Forensic Scientist - Salary	\$79,679.86	\$79,679.86
Forensic Scientist - Salary	\$79,679.86	\$79,679.86
Forensic Scientist - Salary	\$80,675.88	\$80,675.88
Forensic Scientist - Salary	\$79,679.86	\$79,679.86
Forensic Scientist -Benefits	\$53,946.23	\$53,946.23
Program Administrator III	\$7,992.00	\$7,992.00
<b>Subtotal</b>	<b>\$677,792.82</b>	<b>\$677,792.82</b>
<b>Equipment</b>		
Agilent GCMS	\$256,246.11	\$256,246.11
<b>Subtotal</b>	<b>\$256,246.11</b>	<b>\$256,246.11</b>
<b>Consultants/Contracts</b>		
9-Delta Analytical LLC	\$117,600.00	\$117,600.00
HSGC and GCMS Instrument service contract with Agilent	\$89,334.00	\$89,334.00
Installation of N2 Generator Infinity XE 60	\$126,907.00	\$126,907.00
LCMSMS and LC-QTOF Service Contract with Agilent	\$181,748.00	\$181,748.00
<b>Subtotal</b>	<b>\$515,589.00</b>	<b>\$515,589.00</b>
<b>Other Direct Costs</b>		
ABFT Certification Exam	\$2,400.00	\$2,400.00
Consumables	\$100,000.00	\$100,000.00
GCMS Instrument Maintenance and Troubleshooting Training	\$16,964.00	\$16,964.00
GCMS Techniques and Operation with MassHunter Analysis	\$22,034.00	\$22,034.00
LCMS Techniques and Operation with MassHunter Analysis	\$6,600.00	\$6,600.00
Overtime	\$50,000.00	\$50,000.00



Improving the Ventura County Forensic Services Bureau's DUID testing program  
Ventura County Forensic Services Bureau

	Grant Funded	Total Budgeted
Subtotal	\$197,998.00	\$197,998.00
<hr/>		
Total Proposed Cost	\$1,647,625.93	\$1,647,625.93

#### Revenue Budget

	Grant Funded	Total Budgeted
Grant Funding		
<hr/>		
Award Requested	\$1,647,625.93	\$1,647,625.93
Subtotal	\$1,647,625.93	\$1,647,625.93
<hr/>		
Total Proposed Revenue	\$1,647,625.93	\$1,647,625.93

#### Proposed Budget Detail

See attached spreadsheet.

#### Proposed Budget Narrative

##### Personnel

Costs may include compensation for wages, such as overtime, and benefits (annual leave and sick leave) for work directly related to, and consistent with, the Project. Personnel hours will be awarded based on the number of grant-funded Project activities approved by CGU. To be eligible for reimbursement, personnel services must occur within the Project Performance Period. Itemize separate Budget line items by Project activity. Combine wages and benefits in the same Budget line item for each Project activity. For EACH Budget Line Item, the narrative shall include the below: \* Job title/classification(s) \* Description of work/job duties \* Salary/rate of pay for each classification \* Number of hours for each classification

##### Forensic Scientist - Salary

Salary for the existing Forensic Scientist grant funded position from June 20, 2025 to July 1, 2026. Perform confirmatory analysis of DUID cases by ELISA, GC/MS, and LCMSMS.

##### Forensic Scientist - Benefits

Benefits for the existing Forensic Scientist grant funded position from June 20, 2025 to July 1, 2026. Perform confirmatory analysis of DUID cases by ELISA, GC/MS, and LCMSMS.

##### Forensic Scientist - Salary

Salary for the existing Forensic Scientist grant funded position from June 20, 2025 to July 1, 2026. Perform confirmatory analysis of DUID cases by ELISA, GC/MS, and LCMSMS.

##### Forensic Scientist -Benefits

Benefits for the existing Forensic Scientist grant funded position from June 20, 2025 to July 1, 2026. Perform confirmatory analysis of DUID cases by ELISA, GC/MS, and LCMSMS.

##### Forensic Scientist - Salary





## Improving the Ventura County Forensic Services Bureau's DUID testing program

Ventura County Forensic Services Bureau

Salary for the existing Forensic Scientist grant funded position from June 20, 2025 to July 1, 2026. Scientist assigned to DUID cases drug screen by LC-QTOF instrument.

### Forensic Scientist - Benefits

Benefits for the existing Forensic Scientist grant funded position from June 20, 2025 to July 1, 2026. Scientist assigned to DUID cases drug screen by LC-QTOF instrument.

### Forensic Scientist - Salary

Salary for the existing Forensic Scientist grant funded position from June 20, 2025 to July 1, 2026. Scientist assigned to the Quality Assurance Program in Toxicology.

### Forensic Scientist - Benefits

Benefits for the existing Forensic Scientist grant funded position from June 20, 2025 to July 1, 2026. Scientist assigned to the Quality Assurance Program in Toxicology.

### Forensic Scientist - Salary

Salary for the existing Forensic Scientist grant funded position from June 20, 2025 to July 1, 2026. Scientist assigned BA/CS Sections.

### Forensic Scientist - Benefits

Benefits for the existing Forensic Scientist grant funded position from June 20, 2025 to July 1, 2026. Scientist assigned to BA/CS Sections.

### Program Administrator III

Sheriff Senior Accountant - She will gather financial information related to the CHP DUID grant and submit for quarterly reports.

## Equipment

Costs may include non-expendable, tangible, personal property having a normal useful life of more than one year, and an acquisition cost of at least \$5,000 (ex: four identical assets, which cost \$1,250 each, for a total of \$5,000, are not considered an equipment purchase). Equipment shall be directly related and necessary to complete grant-funded activities included in the Project. Equipment should be purchased at the beginning of the Project Performance Period to ensure it is utilized when completing corresponding Project activities. If requesting equipment, the Project shall contain a correlating grant-funded Project activity. To be eligible for reimbursement, equipment must be purchased and received within the Project Performance Period. Itemize separate Budget line items for each Equipment item. For EACH Budget line item, the narrative shall include the below: \* Description of equipment item \* Quantity \* Unit cost and total cost

### Agilent GCMS

Two Gas Chromatography-Mass Spectrometry instruments manufactured by Agilent. The unit cost is \$122,021.96. Adding 5% to account for any increases after July 1st, 2024 yields \$128,123.053. Total cost is \$256,246.11. Cost includes 1 PM (CrossLab Silver).

## Consultants/Contracts

Costs may include professional services necessary to carry out Project activities, including goals and deliverables, that are clearly outlined in the Grant Application. A copy of the Contract and/or Scope of Work must be submitted to and approved by the CGU prior to commencement of work. To be eligible for reimbursement, Consultants/Contracts services must occur within the Project Performance Period. Itemize separate Budget line items for each Consultants/Contracts. For EACH Budget line item, the narrative shall include the below: \* Name of Consultants/Contracts (if Consultants/Contracts unknown, then provide the process by which the



Consultants/Contracts will be selected) \* Detailed summary of the scope of work \* Total amount (ensure a breakdown of costs is included)

#### **Installation of N2 Generator Infinity XE 60**

Installation of the N2 Generator Infinity XE 60 compressors on the laboratory roof, which will include properly enclosing the equipment to protect it from the weather, as well as electrical wiring and the plumbing to supply the nitrogen to the instruments.

#### **9-Delta Analytical LLC**

9-Delta Analytics LLC will perform 8 method validations for the FSB following ANSI-ASB standards. The validations include barbiturates, antipsychotics, antidepressants, antihistamines, and cocaine in blood and urine. The cost per sample type is \$58,800 for 24 compounds. The total cost is \$117,600.

#### **HSGC and GCMS Instrument service contract with Agilent**

Service contract with Agilent to provide preventive maintenance to HSGC and GCMS instruments as well as any service required due to issues with the instruments. The service contract will cover hardware and software problems. The GCMS service contract costs

#### **LCMSMS and LC-QTOF Service Contract with Agilent**

Service contract with Agilent to provide preventive maintenance to LCMSMS and LC-QTOF instruments as well as any service required due to issues with the instruments. The service contract will cover hardware and software problems. The GCMS service contract costs

#### **Other Direct Costs**

Costs may include operational costs. Other Direct Costs shall be directly related and necessary to complete grant-funded activities included in the Project. Other Direct Costs should be purchased at the beginning of the Project Performance Period to ensure they are utilized when completing corresponding Project activities. To be eligible for reimbursement, Other Direct Costs must be purchased and received within the Project Performance Period. Itemize separate Budget line items for each Other Direct Costs item. For EACH Budget line item, the narrative shall include the below: \* Name/description of Other Direct Costs \* Quantity \* Unit cost and total cost

#### **GCMS Techniques and Operation with MassHunter Analysis**

Agilent onsite Training - GCMS Techniques and Operation with MassHunter Analysis - 4 days for 5 scientist.

#### **GCMS Instrument Maintenance and Troubleshooting Training**

Agilent Training - GCMS Maintenance and Troubleshooting - 3 days for 5 scientists.

#### **LCMS Techniques and Operation with MassHunter Analysis**

Agilent Training onsite - LCMS Techniques and Operation with MassHunter Analysis - 4 days for 6 scientists

#### **Consumables**

Consumables that include but are not limited to solid phase extraction (SPE) columns, solvents for extraction, solvents to prepare mobile phases for the LCMSMS instruments (including LC-QTOF), GC consumables, LC consumables, CRM (standards), and pipette tips.

#### **Overtime**

Overtime to work extra hours on DUID-related tasks such as analyzing and/or reviewing DUID batches, reducing backlog and improving turnaround times.



### **ABFT Certification Exam**

The application for the ABFT certification Exam costs \$300 per individual. Total for 8 scientists is \$2400.