Humboldt County Sheriff's Office's Education, Analysis, and Enforcement Project: Proposition 64 Public Health & Safety Grant Program

Local Evaluation Plan (LEP)

Project Cycle: October 1, 2020 through September 30, 2023

Funded by the Board of State and Community Corrections (BSCC)

Submitted by Humboldt County

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Project Background

Humboldt County is a rural county in northwestern California containing seven incorporated cities. Over half of Humboldt County's approximately 135,000 citizens live in isolated and unincorporated areas and rely on the Humboldt County Sheriff's Office (HCSO) as their primary law enforcement agency. The county population is comprised of the following ethnic groups: 83.5% Caucasian, 11.7% Hispanic/Latino, 6.3% Native American Indian/Alaska Native, 2.9% Asian, 1.4% African American, 0.3% Native Hawaiian/Other Pacific Islander and 5.6% other races. Humboldt County is a densely forested and mountainous rural county and is geographically large, ranking as the 14th largest of California's 58 counties at approximately 4,052 square miles, however it is only the 35th most populous county in the state.

Humboldt County is economically depressed in comparison to national averages of median household income and poverty rates. According the United States Census Bureau's report of Income and Poverty dated September 15, 2020, the national median household income was $68,703 and the poverty rate was 10.5%[1]. Humboldt County, however, has a median household income of only $48,041 with a poverty substantially higher poverty rate of 19.1%.[2]

With fewer economic opportunities than elsewhere in California, many Humboldt County residents have turned to cannabis cultivation as their source of income. Humboldt attracts cannabis activity due to its vast rural jurisdiction, small population, and temperate climate. Humboldt County has the most cannabis cultivation licenses in the state according to a report from the California Department of Food & Agriculture (CDFA) and CalCannabis Cultivation Licensing (CAL) dated December 31, 2020, however there are also an estimated 9,700 unpermitted grow sites within the county. These numbers demonstrate the prevalence and cultural normalization of cannabis within the community which subsequently negatively affects youths and the natural environment of Humboldt County.

In October of 2020, The California Board of State and Community Corrections (BSCC) awarded the County of Humboldt with a grant for a youth reinvestment, public safety, public health and environmental impact program. The youth reinvestment component is designed to reduce the truancy rate and usage of illegal substances through education and engagement. The County's main goal regarding youth is to decrease the potential for involvement in the cultivation industry

[1] Semega, Jessica; Kollar, Melissa; Shrider Emily A.; and Creamer, John, Income and Poverty in the United States: 2019, United States Census Bureau, September 15, 2020, Income and Poverty in the United States: 2019 (census.gov)

[2] Quick Facts, Humboldt County, California, United States Census Bureau, July 1, 2019, U.S. Census Bureau QuickFacts: Humboldt County, California

and increase the overall number of students who graduate from high school. The program addresses socio-economic disparities by prioritizing relevant service delivery to economically depressed areas to build a bridge between law enforcement and the youth residing in communities where cultivation is prevalent.

Upon hire, the Humboldt County Sheriff's Office (HCSO) Community Services Officer (CSO) will implement an education program that is consistent with elements of the Office of Juvenile Justice and Delinquency Prevention evaluation system. The CSO will address repeated truancies and drug-related behavioral issues by introducing alternative activities. The California Department of Public Health "Let's Talk Cannabis" toolkit will be utilized by the CSO to develop a drug education curriculum. The CSO will also serve at least 5 youths in an Explorer program where they will be introduced to a wide array of law enforcement career options and receive hands on training by assisting in rescue operations and general traffic and crowd control. Eligible youth in grades 6 through 12 will be referred to the program by teachers and other school personnel based upon the presence of drug-related behavioral issues, repeated truancies, incidents of possession, or a negative change in academic performance.

In addition to the negative impacts on the youth population, Illegal cannabis cultivation also contributes to the County's crime rate. It is estimated that there are approximately 15,000 illegal cultivation sites within Humboldt County. These illegal cultivation sites pose a threat to public safety by increasing criminal activity such as robberies, burglaries, and homicides that have a marijuana nexus, however they are not contributing to the funding of the public safety resources necessary to address these criminal incidents due to their black-market sale which deprive the County of necessary tax revenue.

The Humboldt County Sheriff's Office's Marijuana Enforcement Team (MET) will work to address the public safety component of this project by continuing to monitor compliance of its approximately 600 fully legalized cultivation sites and 800 in-progress County permit holder sites. Additionally, MET will work towards identification of drug trafficking operations as well as illegal cannabis cultivation sites through tips received from citizens and deputies, and internal intelligence gathering using Geographic Information System (GIS) mapping. The expectation is that conducting enforcement activities should encourage compliance and yield an increase in legally permitted cultivation operations.

During enforcement activities at cannabis cultivation sites the MET frequently discovers environmental damage, such as the presence of waste products, pesticides and water diversion. HCSO has developed a partnership with the Integral Ecology Resource Center (IERC), a local 501(c)(3) nonprofit ecosystem research and reclamation organization, to evaluate and identify public health concerns associated with cannabis cultivation sites that require mitigation. Funding from this grant will be used to contract with the IERC to address the public health risks and environmental damage to Humboldt County's waterways. Upon the discovery of a possible environmental hazard at a cultivation site, the MET will refer the site to the IERC for their review.

Project Goals:

- Offer opportunities for growth and career exploration to at-risk youth.
- Provide public health education regarding youth consumption of cannabis products.
- Improve youth engagement and outreach through mentoring relationships with Sheriff's Office personnel and Humboldt County students.
- Disrupt the illegal marijuana industry.
- Monitor compliance among permitted cannabis cultivation sites in Humboldt County.
- Evaluate the environmental impacts and potential health risks associated with illegal cannabis cultivation sites.
- Identify solutions and seek funding to reverse the negative environmental and public health impacts.

Project Objectives

- Develop youth diversion program targeted at high-risk populations.
- Engage with at least 5 Humboldt County school students annually in a job shadowing opportunity with a Sheriff's Office employee.
- Establish an Explorer program for at least 5 students (annually) to participate in field activities and search and rescue training.
- Reduce the number of illegal cannabis cultivation sites by conducting at least 90 investigations per grant year, totaling at least 270 investigations throughout the life of the grant.
- Reduce the amount of illegal marijuana on the streets by eradicating at least 210,000 unpermitted marijuana plants per grant year, totaling at least 630,000 illegal plants destroyed throughout the life of the grant.
- Increased public safety through the identification of cannabis-related crime patterns by a Crime Analyst to allow for more focused and proactive enforcement.
- Increased awareness of the negative environmental impacts of illegal cannabis cultivation sites through partnership with the 501 (c)(3) nonprofit, Integral Ecology Resources Center (IERC) to conduct at least 3 cannabis cultivation site environmental and public health risk assessments per grant year, totaling at least 9 assessments throughout the life of the grant. Assessments will include analysis of a variety of environmental media (e.g., soil, vegetation, water) for pesticides, analysis will also include an assessment of environmental risks to the ecosystem through water diversions, habitat modification, and soil erosion.
- Creation of a full site reclamation plan by the IERC, which identifies the presence of any hazardous materials risks, required resources and implementation plan for the abatement of all hazardous and non-hazardous refuse within one cannabis cultivation site identified as having the greatest need for immediate intervention. The IERC will also Identify and utilize additional funding sources and partnerships to conduct the reclamation operations.

Process Evaluation Method and Design

Due to the variety of goals and activities proposed in this project, a mixed methods research design will be utilized to determine program effectiveness, with its main emphasis being the youth engagement segment where a longitudinal-panel research design will be used. This design will incorporate quantitative data collection and analysis through youth program attendance tracking, frequency of drug-related behavioral issues, truancy rate, number of enforcement operations conducted, number of illegal plants eradicated, number of environmental hazards located. This data will be tracked and evaluated internally by HCSO's Crime Analyst.

Youth Engagement and Education

A full-time Humboldt County Sheriff's Office's Special Services Lieutenant (SSL) will be accountable for the operations focused on youth development, prevention and intervention. The SSL will utilize the International Association of Chiefs of Police Youth Focused Policing Agency Self-Assessment Tool annually and at grant completion to assess if the plan that was implemented is exhibiting success or if efforts need to be refocused. This information will be provided to department leadership who will evaluate whether the project is producing successful outcomes and is remaining on-track.

The full-time Humboldt County Sheriff's Office CSO will document from the beginning of each Explorer, job shadowing, and diversion program how many students are enrolled as participants. The CSO will continue to monitor attendance and dropouts throughout the program by use of an attendance log. Any performance-based measures i.e. test scores, participation, etc. will be documented by the CSO. All documentation will be provided to the Crime Analyst who will log the data in an Excel log and provide a report to the SSL quarterly. Examples of some process measures used to determine how well the program's activities have been implemented to fidelity include:

- The number of juveniles who complete the Job Shadowing program (compared to the number expected to complete the program)
- The number of juvenile Job Shadowing participants from Southern Humboldt Joint Unified School District (compared to the number of Southern Humboldt Joint Unified School District expected to participate)
- The number of juveniles who complete the Explorer program (compared to the number expected to complete the program)

Data to Be Collected	Variable Type	How We Will Collect It
Job shadowing program attendance	Numeric	Review of program attendance sheet collected by the CSO, Data to be included in Quarterly Progress Report (QPR) by the Crime Analyst
Explorer program attendance	Numeric	Review of program attendance sheet collected by the CSO, Data to be included in the QPR by the Crime Analyst
Drug-related behavioral incidents	Numeric	CSO to gather data from school administrators, Data to be included in the QPR by the Crime Analyst
Days of school missed (truancy)	Numeric	CSO to gather data from school administrators, Data to be included in the QPR by the Crime Analyst

This project goal will be measured using and quantitative data analysis to produce a complete set of findings.

Quantitative Data Analysis

A longitudinal panel study will be used with a research hypothesis that there will be some change in the participants before and after participating in the Explorer and Job shadowing programs. We will examine the same set of participants and assess progress/change through measurable variables, such as frequency of drug-related behavior issues and truancy rates. A test of difference between means for our sample will show if participation in the Explorer and Job shadowing programs influences the above-mentioned variables. We are interested in determining the impact of program participation on truancy and frequency of drug-related behavioral issues in the pre-program participants versus frequency of drug-related behavioral issues and truancy rates in post-program participants. In this case, then μ_1 is the mean of frequency of drug-related behavioral issues and truancy rates at time 1 (before program participation), and μ_2 is the mean of drug-related behavioral issues and truancy rates at time 2 (after program participation). Therefore,

Null hypothesis$_1$: ($\mu_1=\mu_2$) — *The frequency of drug-related behavioral issues does not differ before and after program participation.*

Research hypothesis$_1$: ($\mu_1\neq\mu_2$) — *The frequency of drug-related behavioral issues differs before and after program participation.*

Null hypothesis$_2$: ($\mu_1=\mu_2$) — *The truancy rate does not differ before and after program participation.*

Research hypothesis$_2$: ($\mu_1\neq\mu_2$) — *The truancy rate differs before and after program participation.*

To test the impact of program participation on frequency of drug-related behavioral issues and truancy rate we compare these numbers both before and after program participation. The before-after comparison will focus our attention on the difference between time 1 and time 2, as reflected in the formula to obtain the standard deviation (for the distribution of before-after difference frequencies)

Respondent	Before Program Participation (x_1)	After Program Participation (x_2)	Difference ($D = x_1-x_2$)	(Difference)^2 (D^2)
Participant 1				
Participant 2				
Participant 3				
Participant 4				
Participant 5				
	$\Sigma x_1 =$	$\Sigma x_2 =$		$\Sigma D^2 =$

$$SD = \sqrt{\frac{\Sigma_D 2}{N} - (\bar{X}_1 - \bar{X}_2)^2}$$

where SD = standard deviation of the distribution of before-after frequencies
D = after participation frequency subtracted from before participation frequency
N = number of participants in the sample

Further statistical computations will be completed to calculate the *t* ratio, which will determine whether we can reject our null hypotheses at the .05 significance level giving us a 95% confidence rate that the statistical result did not occur by chance or sampling error.

Public Safety

The public safety, public health, and environmental impact portion of this project will utilize a non-experimental research design. There will be no control or comparison group, outcomes will only be measured. The outcome evaluation will identify the results and impact of the project's strategies.

A full-time MET Sergeant with the Humboldt County Sheriff's Office will be accountable for the day-to-day operations focused on the reduction of illegal cannabis cultivation. Deputies assigned to MET will utilize the Daily Statistical Report form (Appendix A) to document marijuana enforcement activities. Data from these forms will be used by the Crime Analyst to track progress relative to HCSO's goal to disrupt the illegal marijuana industry and monitor compliance. Additionally, the Crime Analyst will review cannabis-related crimes in HCSO's records management program (RIMS) to ensure proper documentation and to identify any patterns. The information will be tracked using RIMS Reports and an Excel database and will be provided to the MET Sergeant on a monthly basis. A quarterly report will be generated by the Crime Analyst for review by the SSL. Examples of some process measures used to determine how well the program's activities have been implemented to fidelity include:

- The number of cultivation site investigations completed (compared to the number of investigations expected to be completed)
- The number of drug trafficking organizations disrupted (compared to the number expected to be disrupted)
- The number of unpermitted marijuana plants eradicated (compared to the number expected to be eradicated)

Data to Be Collected	Variable Type	How We Will Collect It
Cultivation site investigations	Numeric	Review of Daily Statistical Reports completed by MET Deputies; Crime Analyst to complete monthly review

Public Health and Environmental Impact

The IERC will assess the element of public health risk at least 3 cannabis cultivation sites annually, identified by the MET Sergeant. IERC will conduct field research to determine the presence of contaminants in the soil, vegetation, and water that can be directly tied to cannabis production. The IERC will provide its findings to the MET Sergeant on a quarterly basis. Examples of some process measures used to determine how well the program's activities have been implemented to fidelity include:

- The number of public health risk assessments at cannabis sites completed (compared to the number expected to be completed)
- The number of cannabis site reclamation plans created (compared to the number expected to be completed)
- The number of cannabis sites added to the IERC's environmental impact database (compared to the number expected to be added)

Data to Be Collected	Variable Type	How We Will Collect It
Illegal cultivation environmental hazards	Numeric, Narrative	IERC staff to complete annual reports

Outcome Evaluation

The outcome evaluation will utilize a non-experimental research design with no control/comparison group. An intervention group of student participants will be identified, however only outcomes for this group will be tracked. Outcomes related to marijuana enforcement will be tracked on a numeric basis to determine project fidelity.

The table below indicates the outcome measures that will be tracked throughout the project.

Variable Description	Variable Type	Agency to Collect Data
Number of students who completed the Explorer program	Numeric	HCSO CSO
Number of students who completed the job shadowing program	Numeric	HCSO CSO
Age, Gender Identity, Race/Ethnicity	Categorical	HCSO CSO
Number of school days participant has missed by quarter	Numeric	HCSO CSO
Number of drug-related behavioral issues reported	Numeric	HCSO CSO
Number of illegal cannabis cultivation sites eliminated by quarter	Numeric	HCSO MET
Number of illegal marijuana plants eradicated by quarter	Numeric	HCSO MET
Number of environmental impact sites identified and added to database annually	Numeric	IERC Staff
Number of environmental and public health risk assessments completed annually	Numeric	IERC Staff
Number of full site reclamation plans developed annually	Numeric	IERC Staff

Evaluation Questions

A set of self-evaluation questions will be used to determine whether the project objectives have been achieved. Success of the project will be determined based upon the answers to these questions, which should illustrate how closely the project has adhered to the goals set forth in the proposal.

- Has a youth diversion program been created?
- Have at least five students (including at least three students from Southern Humboldt Joint Unified School District) per year participated in an Explorer program?
- Have at least five students per year participated in a job shadowing opportunity with HCSO?
- Have truancy rates decreased amongst Diversion/Explorer/Job shadowing participants?
- Have the number of drug-related behavioral issues decreased amongst Diversion/Explorer/Job shadowing participants?
- Have a minimum of 90 cultivation site investigations occurred annually?

- Has a minimum of 210,000 unpermitted marijuana plants been eradicated annually?
- Has there been a decrease in the presence of illegal cannabis cultivation sites?
- Have there been monthly reports of cannabis-related crimes provided to the MET Sergeant?
- Have alternate funding sources been identified to assist with the costs of implementing reclamation operations to high-need cultivation sites?
- Have at least three environmental impact sites been identified and added to the IERC database annually?
- Has there been one cannabis cultivation site reclamation plan containing full project cost been created annually?
- Have there been at least three cannabis cultivation site environmental and public health risk assessments completed annually?

Project Logic Model

Goal 1 Logic Model

Goal: To foster mentoring relationships between Sheriff's Office personnel and Humboldt County students while offering opportunities for growth and career exploration

Program: Humboldt County				
INPUTS	**ACTIVITIES**	**RESULTS**		
Key Resources	Community Outreach, Prevention & Intervention	Outputs	Outcomes	Impacts
• HCSO Staff: Community Services Officer, Deputy Sheriff, Crime Analyst • Humboldt County Office of Education (HCOE) Staff	• Create a youth diversion program • Substance use education • Job shadowing opportunity with HCSO employee • Establish an Explorer program to conduct field activities such as search and rescue training	• At least 5 students enrolled in Explorer program • At least 5 students engaged in job shadowing program • 1 youth diversion program established	• At least 15 students served through Explorer program • At least 15 students provided job shadowing opportunities	• Decreased dropout rate • Increased high school graduation rate • Decreased frequency of drug-related behavioral issues • Decreased frequency of drug usage by youth

Goal 2 Logic Model

Goal: To disrupt the illegal marijuana industry and monitor compliance among producers in Humboldt County

Program: Humboldt County				
INPUTS	**ACTIVITIES**	**RESULTS**		
Key Resources	Law Enforcement & Prosecution	Outputs (Per Year)	Outcomes	Impacts
• HCSO Staff: Deputy Sheriff, Sworn overtime personnel, Crime Analyst	• Identify illegal cannabis cultivation sites • Identify and disrupt drug trafficking organizations • Eradicate unpermitted marijuana plants • Monitor cannabis-related crimes	• Investigate at least 90 illegal cultivation sites • Eradicate at least 210,000 unpermitted marijuana plants • 12 monthly cannabis-related crime reports	• At least 270 illegal cultivation site investigations • At least 630,000 unpermitted marijuana plants eradicated • 36 monthly cannabis-related crime reports	• Reduction in number of illegal cannabis grow sites • Reduction in illegal cannabis on the market

Goal 3 Logic Model

Goal: Evaluate the environmental impacts and potential public health risks associated with illegal cannabis cultivation sites in Humboldt County, and identify solutions and seek funding to reverse these negative impacts

Program: Humboldt County				
INPUTS	**ACTIVITIES**	**RESULTS**		
Key Resources	Prevention & Intervention	Outputs (Per Year)	Outcomes	Impacts
• Integral Ecology Resource Center (IERC) • HCSO Staff: Marijuana Enforcement Team (MET)	• Identify high-need cannabis cultivation sites • Develop detailed assessments of the high-need cannabis cultivation sites • Test for pesticides and other contaminants in soil, vegetation, and water samples	• At least 3 cannabis cultivation site environmental and public health risk assessments • 1 full reclamation plan detailing hazardous material risks, resources required for abatement, estimated cost for full reclamation for the highest need cultivation site • At least 3 environmental impact sites identified and added to the IERC database	• At least 9 cultivation site environmental and public health assessments completed • Funding sources identified to assist with the abatement of high-need cannabis cultivation sites • 3 full reclamation plans for the highest need cultivation sites • At least 9 environmental impact sites identified and added to the IERC database	• Enhance the existing IERC database • Increase public health risk awareness associated with illegal cannabis cultivation sites • Reduction of environmental impacts related to illegal cannabis cultivation sites

Appendix A. MET Daily Statistical Report

HUMBOLDT COUNTY SHERIFF'S OFFICE

===== DRUG ENFORCEMENT UNIT **DAILY STATISTICAL REPORT ===**

HSCO CASE # _____
DATE _____
OFFICER _____
PIN# _____

LEAD AGENCY _____
CASE # _____

SEARCH WARRANT # _____
ADDRESS / APN # _____

PROPERTY OWNER _____

LATITUDE _____
LONGITUDE _____

INVOLVED AGENCIES							
HSO	DTF	CERT	USFS	CEU	F&G	STPK	BLM
FBI	DEA	BNE	DA				

OTHER _____

TYPE OF LAND / DESCRIPTION			
PUBLIC:		**PRIVATE:**	
USFS	_____	SEARCH WARRANT	_____
BLM	_____	OPEN FIELD	_____
BIA	_____	CONSENT	_____
OTHER	_____	PROBATION	_____

NUMBER GARDENS / PLANTS		
OUTDOOR	_____	_____
INDOOR	_____	_____
GREENHOUSE	_____	_____
DRYING SHED	_____	_____
OTHER		

SECURITY	
WATCH DOG	_____
ALARM	_____
BOOBY TRAP	_____
ARMED GUARD	_____
NONE	_____
OTHER	_____

ASSET SEIZURE – NUMBER AND DOLLAR AMOUNT	
CURRENCY	_____
VEHICLES	_____
ATV'S	_____
HANDGUNS	_____
SHOTGUNS	_____
RIFLES	_____
ASSAULT WEAPONS	_____
KNIVES	_____
GENERATORS	_____
LIGHTS, HOODS, BALLASTS	_____
CHEMICAL/FERTILIZER	_____

WEIGHT / SEIZURE INFORMATION			
TOTAL # PLANTS			
PLANT SIZE RANGE	_____	TO	_____
TOTAL # GARDENS			
TOTAL WEIGHT			
CIRCLE ONE	LBS	OZ	GRAMS
DRIED WEIGHT	_____	_____	
	_____	_____	
	BUD	SHAKE	

BHO/LAB _____
OTHER NARCOTICS / AMOUNT _____

SUSPECT INFORMATION					
ANY SUSPECTS?	YES	_____	NO	_____	TO BE DETERMINED _____
IS CASE PROSECUTABLE?	YES	_____	NO	_____	UNDECIDED _____
IS FOLLOW-UP REQUIRED?	YES	_____	NO	_____	UNDECIDED _____

NAME	CHARGES	DOB	ARREST	WARRA

REVISED 06/15