



Office of the City Manager

CONSENT CALENDAR

March 21, 2023

To: Honorable Mayor and Members of the City Council

From: Dee Williams-Ridley, City Manager

Submitted by: David Sprague, Interim Chief, Fire Department

Subject: Grant Application: Funding from the Federal Emergency Management Agency (FEMA) to expand a NFPA 1582/1583 compliant employee Wellness, Fitness and Human Performance Program

RECOMMENDATION

Adopt a Resolution authorizing the City Manager to apply for and accept a grant, and any amendments, from the Federal Emergency Management Agency (FEMA) for up to \$840,000 with a 10% or \$84,000 in matching city funds to expand a National Fire Protection Association (NFPA) 1582/1583 compliant employee Wellness, Fitness and Human Performance Program.

FISCAL IMPACTS OF RECOMMENDATION

There is a 10% matching funds requirement or \$84,000. The Fire Department (Department) has these funds in its baseline budget.

CURRENT SITUATION AND ITS EFFECTS

The Department has already committed \$800,000 annually to support NFPA 1582 compliant physicals, cancer screening, on-site human performance specialists focused on strength and injury prevention and rehabilitation, the purchase and maintenance of physical fitness equipment in firehouses, to facilitate attendance in-patient mental health treatment programs for first responders, to provide professional clinical support for the Peer Counseling Unit (PCU), and to provide 15 days of on-site health and wellness related education from national experts for members.

An award would allow the Department to hire two full time subject matter experts (SME) to be on site for the two-year grant performance period. One SME will focus on behavioral health and the other will focus on nutrition.

Behavioral Health

According to the International Association of Fire Fighters “There is growing concern about behavioral health issues and the significant impact on wellness. The stresses faced by firefighters, paramedics and EMTs throughout the course of their careers – incidents involving children, violence, inherent dangers of firefighting and other potentially traumatic events – can have a cumulative impact on mental health and well-being.”

On average, the stress level (anxiety, depression and irritability) of Berkeley firefighters intensifies by 31% throughout the course of a day according to the data obtained from the Veterans Rand 12-Item Health Survey (VR-12) conducted by the BFD in 2022. This survey is the gold standard for assessing physical and mental health related standards. The VR-12 is widely used by major health systems, including centers for medicare/medicaid, (CMS) and the VA. The effects of high-stress levels emulate the effects of poor sleep and sleep debt. Members that encounter increased stress levels throughout the day are increasing their risk of impaired awareness, accuracy, and decision-making abilities, putting the member and their team at higher risk. Chronic stress without adequate recovery negatively affects department readiness, decreases performance, and makes a firefighter more susceptible to injury and illness. Exercises such as meditation, deep breathing, better sleep, and mindfulness practices can help reduce the risks of stress and keep the members safe at home and on the fireground.

The Behavioral Health Specialist (BHS) will focus holistically on the organization including through working with labor and management to continue to create a culture of support (suicide prevention) in a high-risk career, design and deliver education on the impact of sleep on mental wellness, creating a work environment that allows for restorative sleep habits, contributing to the development of a behavioral health module within the BFDs leadership development program, serve as the primary SME for cognitive performance education and consultations for members, participate in after action reviews and debriefings following high stress incidents, and perform behavioral health monitoring and modify program design to address emerging trends.

Nutrition

According to the CDC, cardiovascular disease remains the leading cause of firefighter line-of-duty death accounting for about 45% of all on-duty firefighter deaths. In 2022 BFD conducted a readiness assessment of the members where body fat was measured. The results determined that 43% of the membership was overweight with 50% of those being obese. The readiness assessment compares the members body fat percentage to the classification of values for body mass index recommended by the World Health Organization. WHO classifications: healthy = < 24.9, overweight = 25.0 - 29.9, and obese > 30.0. In addition to the impact on physical performance, high body fat percentage is associated with obesity which has detrimental effects on musculoskeletal injury, physical performance, and chronic health conditions, such as hypertension and glucose metabolism deficiencies. It is widely accepted that the additional load to the skeletal system, as seen in obesity, produces altered body mechanics that unfavorably affect the function of joints. Obesity has been identified as a top risk factor for the initiation and progression of osteoarthritis in load-bearing joints, primarily the knee, but also the hip and ankle.

The Nutritional Health Specialist (NHS) will work holistically to evaluate institutional barriers to better nutrition and make recommendations to the labor and management team for ways to address them. The NHS will develop and deliver nutrition education, demonstrations, or events related to nutrition for performance. The NHS will work with individual members or teams to build awareness of nutrition science and the impact of proper fueling on physical and mental performance and job readiness. They will implement strategies for fueling for performance that focus on maintaining energy through proper hydration and the quality, quantity, and timing of meals. This will be accomplished through

1:1 sessions to achieve their individual goals for performance and weight management which will decrease the risk of injury and reduce modifiable risk factors for chronic diseases using nutrition. The NHS will also assess and analyze dietary practices, body composition, and energy balance (intake and expenditure) of the members in the context of athletic performance and health; council members on achieving and maintaining a level of body mass, body fat, and muscle mass that is consistent with good health and good performance; provide personalized meal and snack plans to promote achieving short- and long-term goals for athletic performance and good health; provide medical nutrition therapy, as needed, to help manage or treat medical conditions; address nutritional challenges to performance, such as food allergies, bone mineral disturbances, gastrointestinal disturbances, iron depletion, and iron-deficiency anemia; and evaluate nutritional supplements, including herbal supplements, for legality, safety, quality, and efficacy; monitor the use of appropriate supplementation.

BACKGROUND

Working a career in public safety is extremely rewarding, but also has acute and cumulative impacts to employee's physical and mental health. Firefighters must be physically and mentally prepared in order to mount a competent response. Each member's readiness dictates to what degree of efficiency and professionalism their fire companies respond and mitigate risk. It is the obligation of the employer to mitigate these impacts through system level prevention, education, monitoring and post incident support. Through Department funded research performed in 2022, it has been discovered that the stress level (anxiety, depression and irritability) of Berkeley firefighters intensifies by 31% throughout the course of a day, 45% of members report experiencing depression with 15% getting worse in the past 12 months, six members have attended in-patient trauma retreats, 55% of members report trouble sleeping, 43% of the membership was overweight with 50% of those being obese and 84% stated they would utilize a nutrition and behavioral health specialist if they were on site. In 2022, following annual physicals, six members were referred to their personal physicians for follow up and two members are having heart surgery as a result.

The link between workplace experiences encountered during a career in emergency services and mental health problems is now well documented. In 2017 there were 103 documented firefighter suicides in the US and the Firefighter Behavioral Health Alliance (FBHA) estimates that only 40% of firefighter suicides are reported. Suicide is a result of mental illness, including depression and PTSD. PTSD and depression rates among firefighters have been found to be as much as five times higher than the rates within the civilian population, which causes these first responders to commit suicide at a considerably higher rate (firefighters: 18/100,000; general population 13/100,000).

A National Institute of Health study, "Worldwide prevalence of obesity among firefighters: a systematic review protocol", comments on the serious disease and mortality caused by obesity. "Obesity may interfere with job performance and increase the risk of injury during firefighting activity. Obesity also has many deleterious effects on health indices, including reduced arterial function, glucose intolerance, dyslipidemia, type 2 diabetes, hypertension, osteoarthritis, low-cardiorespiratory fitness, pathological remodeling of the heart, endocrine disorders and is associated with higher all-cause mortality."

ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS

There are no identifiable environmental effects, climate impacts, or sustainability opportunities associated with the subject of this report.

RATIONALE FOR RECOMMENDATION

There are scientifically proven impacts to the mental and physical health of public safety employees. This grant will help provide services to prevent or mitigate these impacts to our employees.

ALTERNATIVE ACTIONS CONSIDERED

None.

CONTACT PERSON

David Sprague, Interim Fire Chief, 510-981-3473

Attachments:

1: Resolution

RESOLUTION NO. ##,###-N.S.

GRANT APPLICATION: FUNDING FROM CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CAL FIRE) WILDFIRE PREVENTION GRANT TO IMPLEMENT AN INCENTIVE PROGRAM FOR RESIDENTS OF BERKELEY'S VERY HIGH FIRE HAZARD SEVERITY ZONE

WHEREAS, working a career in public safety is extremely rewarding, but also has acute and cumulative impacts to employee's physical and mental health. There are scientifically proven impacts to the mental and physical health of public safety employees, and

WHEREAS, according to a Veterans Rand Health Survey (VR-12) conducted by the BFD in 2022, on average, the stress level (anxiety, depression and irritability) of Berkeley firefighters intensifies by 31% throughout the course of a day, and

WHEREAS, Berkeley firefighters 45% of members report experiencing depression with 15% getting worse in the past 12 months, six members have attended in-patient trauma retreats, 55% of members report trouble sleeping, 43% of the membership was overweight with 50% of those being obese and 84% stated they would utilize a nutrition and behavioral health specialist if they were on site, and

WHEREAS, according to the CDC, cardiovascular disease remains the leading cause of firefighter line-of-duty death accounting for about 45% of all on-duty firefighter deaths. In 2022 BFD conducted a readiness assessment of the members where body fat was measured. The results determined that 43% of the membership was overweight with 50% of those being obese, and

WHEREAS, the Department an award would allow the Department to hire two full time subject matter experts (SME) to be on site for the two-year grant performance period. One SME will focus on behavioral health and the other will focus on nutrition.

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that the City Manager or her designee is authorized to apply for and accept a grant, and any amendments, from the Federal Emergency Management Agency (FEMA) for up to \$840,000 with a 10% or \$84,000 in matching city funds to expand a National Fire Protection Association (NFPA) 1582/1583 compliant employee Wellness, Fitness and Human Performance Program.

